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Market orientation in Hong Kong aided primary schools : A mixed methods study

Market orientation in Hong Kong aided primary schools: A mixed methods study

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ABSTRACT

The education environment of Hong Kong in recent years has been characterized by increasing competition. Most schools have had to find ways to deal with this stark reality or face the possibility of closure. One of the strategies that schools could consider is to enhance the market orientation level of the whole school. Besides, previous studies provide solid ground to support the relationship between market orientation and performance. However, most of the studies have been conducted in many different industries. To date, there has been relatively little research conducted in the education sector. The aim of this study therefore, was to add knowledge regarding market orientation in primary schools.

The present study was divided into two phases. In the first phase, Kohli *et al.'s* (1993) MARKOR scale was modified and the new Ed MARKOR scale was employed to find out the existing market orientation level of Hong Kong primary schools. Forty-four schools participated, including 538 teachers. It was found that firstly, the market orientation level in the sampled schools seemed to be a little bit higher than the companies studied by Kohli & Jaworski (1993). Secondly, the data showed that the longer teachers had been teaching and the more years for which a school had operated, the less attention and response there was to the information coming from parents and nearby schools. Besides, the level of market orientation of teachers coming from non-Christian schools will be higher than those coming from Christian schools. And there was no significant difference between schools with more or less number of teachers and between high and low levels of enrolment.

After that, a qualitative study was carried out. As a result, a total of 4 schools participated. In-depth personal interviews were conducted with 12 teachers and 4 principals. The findings are, firstly, some of them misunderstand the concept and find market orientation concepts incompatible with their job nature and beliefs. As well as, compared with other companies, schools were much more customer (parental) than competitor oriented. And this may be one of the reasons for the different factor structure between the original MARKOR and Ed MARKOR scale. Apart from this, contentment with the status quo and over-focused department orientation were also impeded the development of school market orientation. On the other hand, open culture, democratic principals as well as strong competitive environment benefit the development of market orientation. Secondly, there were findings which contrary to the quantitative findings. It was found that years of teaching and age was not the main factor affecting the level of market orientation. Sense of belonging, working attitude of teachers and their attitude towards market orientation were indeed the key factors for teachers to be market oriented. In spite of this, most of the interviewees did not agree that they were not so market oriented because they were Christian. They did not think that any religious belief would hinder their impression on school market orientation. Apart from this, some possible consequences including improved service quality, promoted new policy success, enhanced competitive advantage, enhance employees' organizational commitment, teamwork, reputation, word of mouth and retention, as well as the attraction of new customers into the market were found.

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DECLARATION

I declare that the work in this thesis was carried out in accordance with the Regulations of the University of Bristol. The work is original except where indicated by special reference in the text and no part of the thesis has been submitted for any other degree.

Any views expressed in this thesis are those of the author and in no way represent those of the University of Bristol.

The thesis has not been presented to any other University for examination in the United Kingdom or overseas.

Signed.......................................

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CHAPTER ONE

INTRODUCTION

How to achieve quality in education is a topic of increasing concern throughout the world. One of the directions to achieve this goal is the introduction of educational markets and competitions within compulsory education (Bell, 1999; Bell & Rowley, 2002; Birch, 1998). Educational markets have urged schools to incorporate various forms of the marketing perspective into their strategy in order to successfully recruit students in their new competitive environment (Woods *et al.*, 1996). However, whether competition between schools has a beneficial impact on pupils or schools remains a controversial issue. Many economists believe that market competition improves efficiency in the use of resources: suppliers must strive to be efficient and demanders have more choices. To support this argument, there has been considerable research literature in the United States in relation to estimating the effects of competition between schools on student attainment. For example, Belfield & Levin (2001) comprehensively reviewed over 35 studies, used explicit measures of competition and estimated its effects on student attainment. They concluded that increased competition and higher educational quality were positively correlated.

The mechanism proposed by advocates of the market (Chubb & Moe, 1988; Friedman & Friedman, 1980) is that when the survival of a school is directly related to student enrolments, and parents have been given the opportunity to 'vote with their feet' by not sending their children to schools that they believe are not satisfactory, by seeking out inefficiency and by rewarding successful schools, the market will eliminate poor schools and maintain overall quality (Ball, 1990). Increased competition as well as the risk of losing students and resources give public schools incentives to improve education and may lead to more experimentation with regard to, e.g. pedagogical methods. By means of this strategy, the educational market will heighten competition among schools, as the public educational service has become more competitive; schools have looked to improved performance and competitiveness and will in turn bring about efficiency and effectiveness. The effects have been documented empirically. Rapp (2000) finds that teachers work more diligently when competition between schools is introduced.

Opponents (for example, Woods, 2000) argue that professional and client-centred motivations break the direct link between the degrees of competition and producer conduct suggested above. They claim that principals and staff do not need the pressures of competition to induce them to direct their energies to satisfying parental interests through the production of efficient services, but do this without the stimulus of competition. Thus, theories of organizational behaviour and school effectiveness do not unambiguously predict that competition will improve schools' performance. In addition, school marketing opponents have further proposed that competition may even be harmful to students' attainment in some specific categories. Their argument is that if greater competition results in increased sorting of schools with respect to students' ability and social class (McEwan, 2000), then given the evidence that individual students' attainment is positively affected by better attaining peers (Sammons *et al.*, 1996; Feinstein & Symons, 1999), the increased sorting produced by enhanced competition could result in lower average attainment. The impact of competition on school performance will be further discussed in the literature review section.

Whether competition between schools and school marketing has overall beneficial or harmful effects on schools' performance, inducing competition to create incentives for schools to compete for students has already had a vital direction for the Hong Kong school system. As an international city, Hong Kong has echoed the competitive trend in public education from the mid-1990s in order to enhance the quality of the workforce, as well as being more responsive to the increasing market demands for public services with scarce resources. This policy change can be proved by the execution of the New Primary One Admission (POA) system in Hong Kong. By means of the new POA system, which emphasizes the importance of parental choice, the government successfully "eliminated" 172 schools which were relatively less favoured by parents over not more than six years (2003 – 2008). The number of primary schools decreased from 803 to 631 (Hong Kong Education Bureau[1]).

The 'customer-oriented approach' - the New Primary One Admission (POA) System

Historically, elementary education in Hong Kong has been production oriented. This existed up to the year of 2000, when there were few demand constraints on producers. Due to the decrease of the student population – the number of primary school student enrolments decreased from 483,218 in 2003 to 385,949 in 2008 (a total of 97,269 in student number reduction), a surplus was found in the provision of primary education. Because of this situation, the Hong Kong government introduced a New Primary One Admission (POA) system to further reinforce the competition.

[1] http://www.edb.gov.hk/index.aspx?nodeid=1038&langno=1 (accessed 5th December, 2008)

The New Primary One Admission (POA) system is said to be customer oriented because the survival of schools depends on their capacity to maintain or increase a school's "market share" of pupils. The mechanism is as follows: based on the result of the actual choices made by parents, the government works out the total number of children to be allocated to each primary school. This will form the basis for deciding the number of Primary 1 classes that a school may operate in the coming year. Simply speaking, every year, if the total number of Primary 1 pupils allocated to a school is less than 23 (after 2008, the number was lowered to 16) the school may not be allowed to run a Primary 1 class. In general, those schools not operating any Primary 1 class in this year cannot operate Primary 1 classes in the subsequent year. Hence, that school would cease operations in the coming two years (EMB, 2006).

Rather than only focusing on competition-led good performance, one of the underlying beliefs of this policy is that in terms of democratic society, parents should have the right to choose a school that best fits their children's needs.

Market orientation in schools

As we can see in the above policy, the education environment of Hong Kong in recent years has been characterized by increasing competition and environmental turbulence. Most schools have had to find ways to deal with this stark reality or face the possibility of closure. In other words, those schools which have falling student enrolments will have to try hard by using various ways and means in order to raise their popularity, so that they can continue to survive. However, to be more popular, many schools have gone the wrong way and just put all their efforts into "selling" their characteristics without any consideration for parental needs and wants. In fact, just putting information out there is not enough; schools should find out what the parents want and have two-way communication. In other words, one of the strategies that schools could consider is to enhance the market orientation level of the whole school. It is because although parents generally tend to consider the same broad range of factors, priorities vary from place to place and time to time. This indicates the importance of every school exploring its own customer base in order to understand its specific needs and wants as well as preventing the mismatch of school effort and parental needs.

Different from the concept of Marketing, the term Market Orientation defined in this paper is:

"the organization-wide generation of market intelligence pertaining to current and future needs of customers, dissemination of intelligence horizontally and vertically within the organization, and organization-wide action or responsiveness to market intelligence". (Kohli & Jaworski, 1993, pp 467)

In other words, an organization's degree of market orientation depends on the extent to which it successfully gathers information about competitors and customers, disseminates this information to relevant organizational units, and responds and acts on the information so gathered and disseminated.

Apart from the survival issue, studies cited in the literature review chapter provide solid grounds to support the existence of a relationship between market orientation adoption and organizational performance. Despite the continual assertion that market orientation is positively related to financial performance (e.g. Harrison-Walker, 2001; Kaynak & Kara, 2004; Kumar, Subramanian & Yauger, 1998; Martín-Consuegra & Esteban, 2007; Pelham & Wilson, 1996; Singh & Ranchhod, 2004; Tse *et al.*, 2003), improved service quality (Kaynak & Kara, 2004; Pelham & Wilson, 1996), ensure new service / product success (Avlonitis & Gounaris, 1997; Harrison-Walker, 2001; Kaynak & Kara, 2004; Kumar, Subramanian & Yauger, 1998; Pelham & Wilson, 1996; Singh & Ranchhod, 2004) and innovation (Atuahene-Gima, 1996), systematic inquiries for a richer understanding of the construct had proved the association of market orientation with competitive advantage (Avlonitis & Gounaris, 1997; Pelham & Wilson, 1996), employees' response on organizational commitment (Caruana, 1998; Jaworski & Kohli, 1993), motivation (Lai, 2003; Tse *et al.*, 2003), and teamwork (Avlonitis & Gounaris, 1997; Jaworski & Kohli, 1993; Lai, 2003). Market orientation is also related to customers' response based on reputation or word of mouth (Kaynak & Kara, 2004) as well as retention (Harrison-Walker, 2001; Kaynak & Kara, 2004; Lai, 2003; Singh & Ranchhod, 2004; Kumar, Subramanian & Yauger, 1998; Tse *et al.*, 2003).

Owing to the above stated reasons, schools may consider market orientation as a kind of strategy to improve their performance, by means of raising their awareness by collecting, disseminating and responding to the information of their parents and competitors and trying their best to know more about them, and so provide more services that cater for parents' needs.

Insufficient guidance on market orientation for schools

Studies conducted in order to explore the development of a marketing perspective within schools in various countries have revealed that most principals and staff neither hold a coherent marketing-orientated attitude, nor do they employ marketing research, strategies or plans (James & Philips, 1995; Bell, 1999). Part of the reason to explain this phenomenon is the insufficient referencing materials. At present, much of the literature in the field of educational marketing is characterized by ideas, guidance and strategies which are found in marketing models taken from western, non-educational settings. Despite the substantial literature on the appearance of marketing in education (Oplatka & Brown, 2004; Harvey & Busher, 1996) and the general description of the practice of educational marketing in schools (James & Philips, 1995), factors affecting the development of market orientation in primary schools remain un-synthesized and un-theorized. Direct application of the concept "Market orientation" and related studies which have developed mainly in business and non-educational context may cause misunderstanding and be misleading. Principals and school executives therefore can hardly find any reference about how to enhance their schools' market orientation level.

Given the aforementioned imbalance in research effort on market orientation, there is a legitimate need to consider the development of market orientation in educational environments. In other words, the concept of market orientation in schools still requires more theoretical frames and empirical analysis. The aim of this dissertation therefore, is to add to the knowledge in the market orientation of schools as well as extend and synthesize existing research into market orientation in primary schools. It focuses on the variables affecting the development of school market orientation. It is believed that this will make an important contribution to achieving a better understanding of the real problems that school principals face in achieving market orientation, both in the Hong Kong schools included in this study, but also more generally.

Outline of the current study

The present study is divided into two phases – quantitative and qualitative phase. In the first phase, one of the aims of the present study is to validate what appeared to be a promising measure of market orientation and to develop scales for measuring market orientation in the Hong Kong schools context. To achieve this purpose, first, Kohli *et al.'s* (1993) MARKOR scale was modified and used to gauge the levels of market orientation in schools. Applying and adapting their measurement instrument, MARKOR, to other non-traditional organizational forms was highly recommended by its original authors. They have claimed the need to expand the construct to new areas. In addition, the market orientation model and the measures of market orientation available for data collection (Kohli & Jaworski, 1990) were developed in the context of the US cultural setting. The direct application of these models and measures of market orientation to subjects from another culture without any validation might create a ‘‘category fallacy’’ as suggested by Kleinman (1977). Therefore, this study provides a test of the applicability of a western paradigm to an Asian country with a different cultural and economic system, and provides insight about the cultural and contextual differences in relation to the application of the MARKOR scale. After the redevelopment of the instrument, the newly developed Ed MARKOR scale was employed to find out the existing market orientation level in Hong Kong primary schools. After obtaining the general market orientation level of Hong Kong primary schools, the next target of the present study was to discover variables that may affect schools market orientation level. Stimulated by the literature and with a focus on the reality of the Hong Kong primary school setting, as well as being bounded by the constraint of data gathering from quantitative study, attention in the quantitative phase was especially paid to the following areas, including the structure and stability of the schools, cultural factors within teachers, as well as personal factors of the teachers. Following the quantitative study, a qualitative study at this stage was used to serve the function of following up the findings in the previous quantitative research. Besides, it was also used to find out how the factors found in the quantitative study affect the development of school market orientation. Lastly, apart from the factors discovered in the quantitative phase, the qualitative study was used to identify the possible barriers to and drivers of market orientation development.

The education system in Hong Kong

To provide the context for this research, the education system in Hong Kong is introduced first. It starts with an optional two to three years at kindergarten, six years of primary school and six years of secondary school, followed by four years at university. Usually students begin Primary One at the age of 5 or 6 and complete Form 6 at the age of 18 or 19. Primary school education in Hong Kong covers a wide curriculum. Core subjects include Chinese, English, Mathematics and General Studies with a broad emphasis on Music, Physical Education and Art. Depending on the religious background of the school, Religious Education or Bible Studies may be incorporated. The teaching medium in most of the local primary schools is Chinese with English as a second language.

There are several types of primary school in Hong Kong. They include government, aided, direct-subsidized, private and international schools (see table 1). The first three types of schools are all government funded and non-profit making but different in management and degree of freedom. Systems and policies in government schools are the strictest. On the other hand, direct-subsidized schools enjoy more flexibility. They are free to decide on their curriculum, fees and entrance requirements. In between these extremes is the aided school. Only teachers in government schools are public servants and have more governmental benefits and job protection. For example, teachers may transfer from one school to another if the school needs to be closed. Teachers of aided or direct-subsidized schools have no career protection; teachers can only seek jobs in the open market. Direct-subsidized schools are the newest type of school and were introduced in 2001. The aim was to develop a strong private school sector by providing high quality schools apart from government and aided schools so that parents have greater choice in finding suitable schools for their children. However, the development of direct-subsidized schools was very slow: from 2001 to 09, there were only 20 former aided schools which transformed into or became newly established direct-subsidized schools. Other than these local non-profit making school types, there are local private schools and international schools. They provide an alternative to the high-pressure, mainstream education, in exchange for much higher tuition fees. Student admissions are based on academic merit.

Table 1 Types of primary school in Hong Kong

Type	**Funding / school fee**	**Profit making or not**	**Run by**	**No. in year 2008**
Government Schools	Government funding (Based on the number of classes), free of charge	Non-profit making	Government	36
Aided Schools	Government funding (Based on the number of classes), free of charge	Non-profit making	Charitable and religious organizations	432
Direct-subsidized Schools	Government funding (based on the number of students), limited charge	Non-profit making	Charitable and religious organizations	20

Private Schools	Private funding, higher tuition fees	Profit making	Private organizations	40
International Schools	Private funding, much higher tuition fees	Profit making	Private organizations	46

Primary schools are the focus of this study because first and foremost, primary schools were attacked by the first wave of the decreasing student population and the competition in relation to them is vigorous and vital. Understanding the responses of primary schools could provide some good references for the secondary schools that may face the same problem several years later. Next, the researcher himself was a primary school principal who has a thorough understanding of the former and present situation. As a result, a more holistic and accurate discussion is made, although needing to be aware of biased assessment. The final place, i.e. the workplace of the researcher, also became one of the victims of the insufficient student supply. These were the major motives which stimulated the researcher to investigate the involved issues. Aided schools were selected as the subject of this study because first of all they represent the largest portion (75%) of Hong Kong primary school education. Secondly, unlike the private and international schools which had already fought for students by themselves when they were founded, before the year 2000, most aided schools enjoyed enough student enrolments, and received enough student quotas by the distribution from the former Education Department (now, Education Bureau) of the government. The environmental change in aided schools, after the turn of the millennium, created a very interesting topic for investigation. Government schools were not included because of the difference in job protection of the teachers. The effect of the student shortage would not be the same for teachers in government and aided schools. Direct-subsidized schools were also not included because they have more flexibility in their management structure and new curriculum implementation when compared with aided schools, and they can charge student fees to enhance their quality.

Competitors of a school are defined as its neighbouring schools because the education quasi-market in Hong Kong is characterized by a mosaic of different local markets typically defined by the administrative boundaries. It was the principle used from the very beginning of the school allocation policy – "Students allocation by Vicinity". This meant that school provision is organized around catchment areas.

Therefore, schools in the same district compete for the same population when there is a shortage of students - the current situation in many districts in Hong Kong.

In this study, parents were regarded as the main customers for primary schools because although students exercise varying degrees of control over their choice of educational institution at different ages, parents are still the major, if not the sole, primary school choice makers for their children at the age of five to six.

CHAPTER TWO

LITERATURE REVIEW

In this chapter, the impacts of competition between schools will be discussed first. Then the definition and measure of market orientation applied in this study will be outlined. This will be followed by a discussion of the relationship between organization performance and market orientation, and why a market orientation is the organizational culture that most effectively and efficiently creates superior value for customers. Before the final section, which includes reviews of the literature that contributes to the enhancements and barriers to the development of market orientation, how market orientation may lead to better school performance will be discussed.

The impacts of competition on school performance

Although educational markets are different from markets found in the manufacturing sector (Walford, 1996), it was argued that the competition engendered by the market potentially impels schools to produce significant improvements in their schooling and services as well as becoming more effective, responsive and efficient in their performance (Bowe *et al.*, 1992; Foskett, 1998). In the following, experiences from some countries are borrowed to illustrate the positive and negative impact of competition on school and student performance.

Positive impact (The United Kingdom experience)

In a UK study, Levačić (2004) tried to test whether competition has a positive effect on school performance. Two forms of the dependent variable are used—the percentage of a school's students gaining five or more A*–C GCSE passes in 1997 and 1998 (as alternative dependent variables) and the average annual change between 1991 and 1998 in this percentage. The latter is calculated as the annual average percentage points change in the percentage of students obtaining 5+ A*–C grades between 1991 and 1998.

The results showed that generally, in England, schools have been improving their performance since 1993, and 93% of the sample schools improved their GCSE results over the period. The average annual change in GCSE results supports the notion that competition has a positive impact on performance. The result also shows that competition, measured in terms of five or more perceived competitors, has a statistically significant and positive effect on examination results. The estimated impact is between 4 and 5.5 percentage points on the proportion of students obtaining five or more grades A*–C at GCSE. This is quite a strong effect. It is consistent with the findings of Bradley *et al.* (2001), although some may argue that the examinations had become easier, so the results went up generally. Therefore, caution should be exercised here before further application of the evidence.

In another study, Bradley *et al.* (2001) conducted an analysis in the UK in which the school outputs were the proportion of pupils attaining five or more A*–C General Certificate in Secondary Education (GCSE) grades and school attendance, and the inputs were the proportion of students ineligible for free school meals (FSM) as well as the proportion of qualified teachers. The resulting measure of efficiency was then regressed based on a number of explanatory variables, including measures of competition. For each school these were the number of other secondary schools within a varying radius of up to 5km. A significant positive impact of competition on school efficiency was found, particularly with respect to the number of schools within 1km. The size of this effect increased from 1993 to 1998 suggesting a growing influence of the development of quasi-markets on school efficiency.

Positive impact (United States experience)
Belfield & Levin (2001) systematically reviewed the cross-sectional research evidence on the effects of competition on educational outcomes in the US. Competition was typically measured using either the Herfindahl Index or the enrolment rate at an alternative choice (e.g. private school). Outcomes were separated into those relating to academic test scores, graduation/attainment, expenditure/efficiency, teacher quality, wages and house prices. The sampling strategy identified over 41 empirical studies testing the effects of competition. A sizable majority of these studies reported beneficial effects of competition across all outcomes, with many reporting statistically significant correlations. The above evidence shows reasonably consistent evidence of a link between competition and education quality. Increased competition and higher educational quality are positively correlated.

In another study, Hoxby (2003) reviewed the evidence from the United States, including Milwaukee, Wisconsin, Michigan and Arizona, relying primarily on recent policy experiments. Public schools do respond constructively to competition, by raising their student academic achievement (reading proficiency, mathematics score, science score and language score) and school productivity - a school that is more productive is one that produces higher achievement in its pupils for each dollar it spends. The competition raised their productivity and achievement, exceeding not only their own previous performance but also relative to other schools not subjected to charter competition.

Positive impact (Swedish experience)

Sandström & Bergström (2005) analyzed the effects of competition on the public schools using data on the results of 28,000 ninth graders. Because the decision on which school to attend is a choice variable, sample selection models were used. To account for the potential endogeneity of the share of students attending independent schools, the authors used instrumental variable estimation. They also estimated panel data models on 288 Swedish municipalities. The findings support the hypothesis that school results and students' academic attainment in public schools improve due to competition.

Some critics argued that competition between schools may have a beneficial effect on the average student but may hurt students from a poor socio-economic background. To test this possibility, the authors re-estimated the model for students in municipal schools whose parents had no education above the compulsory school level and on students with an immigrant background. In these regressions, the coefficient on the independent school share was considerably smaller, and in one case even negative, and nowhere significantly different from zero. Thus, there is some evidence that students from a lesser socio-economic background benefit less from competition than the average student, but perhaps the most interesting point is that there is no evidence to suggest that these groups of students are hurt by competition.

Negative impacts

The current leading elementary and secondary education reform proposals involve introducing accountability through forms of market-based competition and expanded parental choice. Critics worry that increased choice will isolate the most disadvantaged students in the worst schools and that parents may not be sufficiently well-informed to make choices in the best interests of their children. There is a growing body of theoretical and empirical work that presents a mixed picture of the net impact of various forms of choice.

In Lacireno-Paquet *et al.*'s (2002) study, after comparing the student composition in market-oriented charter schools, non-market-oriented charter schools, and traditional public schools in Washington, DC, the US, they found little evidence that market-oriented charters focus on an elite clientele, but they are less likely than the other two types of schools to serve high need populations. In their terms, rather than skimming the cream off the top of the potential student population, market-oriented charter schools may be "cropping off" service to students whose language or special educational needs make them more costly to educate.

Power, Halpin & Whitty's (1997) study suggested that competition between schools can also lead to a reduction in cross-school collaboration, leaving principals increasingly isolated from each other. Moreover, there has always been a sense in which principals have felt responsible for the future of their schools, but this is heightened in the education market place where success and failure becomes a matter of how well they exercise their management and leadership roles and compete successfully for students.

In sum, the findings introduced above show us that competition may improve school results and students' academic attainment in public schools. However, inequality between different socioeconomic groups and affective disturbance among teachers and principals may be some important issues that need to be resolved.

As mentioned in the introduction, even if competition between schools has an overall beneficial or harmful effect on schools' performance, inducing competition and creating incentives for schools to compete for students had become a vital direction for the Hong Kong school system due to government policy. Previous research had pointed out that competition was one of the antecedents of market orientation (Jaworski and Kohli, 1993). To be market oriented, it appears from the literature to be one of the best strategies for schools to stay alive in today's competitive educational environment. In the following sections, the focus will begin to be redirected from competition to market orientation.

Definitions of market orientation

In terms of marketing concepts, for an organization to achieve consistently above-normal performance, certain authors argue that it must create a sustainable competitive advantage (Aaker, 1989; Porter, 1985). That is, it must create sustainable superior value for its customers. The logic of sustainable competitive advantage is that to purchase something, the customer must perceive that the expected value offering exceeds the expected value to him / her of any alternative solution.

The desire to create superior value for customers and attain sustainable competitive advantage drives an organization to create and maintain a culture that will produce the necessary behaviour. This organizational culture is called market orientation. Market orientation can be viewed as a continuous, rather than a dichotomous, either-or construct. In other words, organizations may differ in their degree of market orientation depending on their extent of orientation toward different dimensions (activities associated with) of market orientation.

Although there is no consensus on what a market orientation is, the definitions of Narver & Slater (1990) and Kohli & Jaworski (1990) appear to be gaining wide acceptance in the literature. Narver & Slater (1990) treat marketing orientation as basically a company philosophy, or culture, while Kohli & Jaworski (1990) regard it as mainly a type of company behaviour.

The debate on the definition of market orientation

Narver & Slater (1990) defined market orientation as an organizational culture, in which conceptualization and operationalization of market orientation is seen as a composite of an organization's orientation towards customers, competitors, and the organization. The first component is customer orientation which reflects the necessary activities for acquiring and disseminating information about customers. A competitor orientation implies an effort to gather and disseminate information about competitors of the market orientation firm. In addition to this, inter-functional coordination involves coordinated efforts by a business to create superior value for customers on a continual basis.

In the second perspective, Kohli & Jaworski (1990) defined market orientation as the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it. The organization is expected to gather information for the purpose of distributing it across the organization for decision-making purposes. The better the match among the three dimensions of market orientation activities (market information gathering, disseminating and responding), the smaller the waste of resources with different activities performed more efficiently (Sandvik & Sandvik, 2003).

Kohli *et al.* (1993) criticized Narver & Slater's (1990) operationalization on three concrete points: first, it reduces the market to consumers and competitors without considering the factors which affect them (environmental factors); second, it does not consider the speed in market information generation and dissemination: third, their scale items do not reflect specific activities and behaviour of a market orientation. On the other hand, Kohli & Jaworski's (1990) conceptualization has also been criticized. Pelham (1993) indicated that it is possibly too limited to embrace all dimensions of the construct market orientation, as market intelligence generation (formal and informal), recognized as a key element of a market orientation, does not guarantee the comprehension of customers' needs, the response to those needs, and the capability of the organization to provide value to its customers.

Despite the debates, the two approaches are similar in many ways. First, both emphasize knowledge of customers and competitors. Second, both consider the nature of market orientation not as an either-or dichotomous construct but as a continuum. Finally, and most important, both can be classified as behavioural, in that both perspectives imply that market orientation is contingent on the behaviour of management (Harris & Piercy, 1999). After comparing and analyzing the convergences and divergences of the two approaches, both conceptually and operatively, Cadogan & Diamantopoulos (1995) concluded that they are complementary and not mutually exclusive. It is also supported by Ruekert (1992), who indicates that differences among these two approaches are produced more in terms of emphasis than in terms of real substratum, which suggests that they are not mutually exclusive but different forms to focus on the same reality.

While the two approaches have several aspects in common with respect to customers, for functional integration and market opportunities, Kohli & Jaworski's (1990) framework is used because it is better suited to the data collection in this study. The definition focuses on specific activities rather than philosophical notions, thereby facilitating the measurement of the degree of market orientation of the schools.

To sum up, the definition in the following by Kohli & Jaworski (1990) on Market Orientation was selected as the basis of the present study:

"the organization-wide generation of market intelligence pertaining to current and future needs of customers, dissemination of intelligence horizontally and vertically within the organization, and organization-wide action or responsiveness to market intelligence".

In other words, an organization's degree of market orientation depends on the extent to which it successfully gathers information about competitors and customers, disseminates this information to relevant organizational units, and responds and acts on the information so gathered and disseminated.

After the selection of the appropriate definition of market orientation, the selection of a suitable instrument to gauge it, which will be discussed in the following section, is also a crucial step for the present study.

Measures of market orientation

The selection of a suitable measure for school market orientation

One of the key themes of research in marketing has been developing measures of market orientation (Deng & Dart, 1994; Cadogan & Diamantopoulos, 1995). The most notable advances are associated with two groups of researchers. They are Narver & Slater (1990) and Kohli & Jaworski (1990).

Two main measures of market orientation have been developed: first, the Kohli *et al.* (1993) MARKOR measure, and second, the Narver & Slater's (1990) construct. MARKOR has been measured as a set of activities and behaviour (Kohli & Jaworski, 1990) and, alternatively, as an overall market-oriented culture (Narver & Slater, 1990).

Creation of the MARKOR scale

The purpose of Kohli & Jaworski's (1990) study was to develop a measure of market orientation and assess its psychometric properties.

Literature-based Perspective

First of all, the authors reviewed related literature and discovered that though the aforementioned authors differ in their preferred conceptualizations, three core themes underlie the definition of market orientation: (1) customer focus, (2) coordinated marketing, and (3) profitability. Given the diverse perspectives and limitations associated with the three themes, efforts were undertaken to delineate the domain of the construct by conducting personal interviews with managers. This effort resulted in the identification of three basic components of market orientation. According to Kohli & Jaworski, while the marketing concept is commonly defined as a philosophy or a way of thinking that guides the allocation of resources and formulation of strategies for an organization, market orientation, is considered to be activities involved in the implementation of the marketing concept. With this definition, three sets of activities — intelligence generation, intelligence dissemination, and responsiveness to market intelligence were created which represent the operationalization of market orientation.

Generation of scale items

The next step entailed the generation of a set of items to capture the domain of market orientation. On the basis of the interviews conducted, two of the authors independently generated items for measuring each component of market orientation. From these efforts, 25 items were initially selected for their appropriateness, uniqueness, and ability to convey to informants "different shades of meaning".

Three pre-tests were conducted to assess the quality of the measure items. In the first, a brief questionnaire containing the items and additional scales designed to assess the measure's properties was administered in person to a total of 27 marketing and non-marketing executives. They were asked to complete the questionnaire and point out any item that was either ambiguous or otherwise difficult to answer. After completing the initial pretests, seven academic experts were asked to critically evaluate the items. The revised, expanded scale was then subjected to one final pretest; seven managers were asked to complete the questionnaire and raise concerns as they completed the revised version of the questionnaire.

Data collection

Data collection was divided into two procedures: Single-Informant Sample and Multiple-Informant Sample.

Single-Informant Sample: After the pretests, the refined survey was mailed to a national sample (N=500) of marketing executives. This sample was drawn from a recently completed American Marketing Association membership roster. Three contacts were made with respondents. Of the 500 executives, 13 were excluded from the final response calculation (e.g. no longer with firm), leaving a base of 487. Of these, 230 responded, giving a final response rate of 47.2%.

A second test of the instrument, which used a multi-informant approach, consisted of two distinct sampling frames. The first data involved a sample of Marketing Science Institute member firms. To begin the process, the executive director of the Marketing Science Institute contacted each member firm to solicit participation. Of the 49 Marketing Science Institute firms, 13 agreed to participate. The contact in each firm was then asked to provide the names of a senior marketing and non-marketing executive. This request resulted in 27 matched pairs of executives. Similar to the single-informant study, the participants were contacted three times to solicit cooperation. The resulting response rates were high for both the marketing (88.9%) and non-marketing (77.8%) executives.

In the first phase of data collection for the second sampling frame, the authors solicited participation from chief executive officers in the Dun and Bradstreet top 1,000 U.S. firms. The approach was to select every other firm in this listing for a total potential sample size of 500 firms. The chief executive officers were contacted a maximum of three times. Of the 500 CEOs contacted, 21 could not be reached. The end result of this effort was the participation of 102 firms.

At this point, the authors commenced soliciting the participation of the executives who would serve as informants. Again, up to three contacts per informant were employed. This effort led to 79.6% of the marketing and 70% of the non-marketing executives participating in the study.

Analysis

The analysis was done in three stages. In the first, the single-informant sample was used to eliminate from the 32-item scale, those items that did not adequately reflect any of the theoretical components of the construct. Second, the multi-informant sample was then used to test several theoretically plausible alternative factor structure specifications and to select the most appropriate factor representation for those items retained at the end of the first stage. Last, various components of the construct were correlated with selected managerially relevant constructs in the multi-informant sample to assess the predictive validity of the market orientation measures.

Validation analysis was also carried out in two parts. First, items measuring each construct used for validation were subject to confirmatory factor analyses, both to determine the appropriate factor representation for the items as well as to prune items that were poor measures of the underlying construct. Finally, the MARKOR scale (See appendix 1) was created.

Three dimensions of market orientation in MARKOR

In their analysis, Kohli & Jaworski (1990, 1993) identified three dimensions of market orientation. They are the generation of market information, the dissemination of the information within the organization, and the design and implementation of the response.

The first dimension refers to the degree to which an organization generates (collects and processes), systematically, information about the needs and preferences, present and future, of consumers, as well as the external forces that influence the results. This task should be carried out by all of an organization's departments, since each one has a special relationship with the market agents.

Once the information is available, the market-oriented organization strives to make it known and share it internally, designing and introducing formal communication processes, as well as stimulating informal interactions among the participants that contribute, not only to the growth of the information sources but also to a greater degree of force-flowing circulation (Maltz & Kohli, 1996). The dissemination of information is attained by means of: first, interdepartmental meetings / informal chats about the tendencies and evolution of the market; second, a generalized discussion about the actions of the competition and consumer satisfaction levels; and third, inter-departmental interactions in order to debate future consumer needs. In fact, the value of the generated information is only maximized when it interrelates the members of all of the organization's functions with the aim of facilitating their action.

The third dimension of market orientation consists of the drawing up and implementation of marketing actions consistent with market understanding. Market-oriented action presupposes the design of the response according to the accumulated information about consumer likes and preferences, the strategies of the competition and environmental factors.

In sum, MARKOR assesses the degree to which an organization engages in multi-department market intelligence generation activities, disseminates this intelligence vertically and horizontally through both formal and informal channels, and develops and implements marketing programmes on the basis of the intelligence generated. Key attributes of the measure include a focus on customers of the organization and the forces that drive their needs and preferences, activity-based items, not business philosophy, and a demarcation of a general market orientation factor and associated component factors.

General descriptions of Narver and Slater's construct

To develop a construct for measuring market orientation, major conceptual literature (e.g. Aaker, 1988; Porter, 1985) to identify the principal common threads were reviewed by Narver & Slater (1990). Referring to the literature, they found that market orientation consists of three behavioural components (customer and competitor orientation, inter-functional coordination) and two decision criteria (a long-term focus and a profit objective).

To establish the face validity of the construct, the authors developed multiple items that characterize the above behavioural components and decision criteria. Thereafter, the items were submitted to two panels of academics who were recognized authorities on strategic marketing. Each item was rated for its consistency with market orientation and additional items were recommended. The preliminary questionnaire was pre-tested with six current or former strategic business unit managers in the corporation from which the sample would be drawn. The final product of the items is presented in Appendix 2.

The sampling units in Slater & Narver's (1990) study were 140 Strategic business units of a major western forest products corporation. (A strategic business unit is defined as an organizational unit with a defined business strategy and a manger with sales and profit responsibility.) Restricting this study to one large corporation conferred limitations, although with the uniform strong support the authors received from the corporation's managers, they had easy access to multiple, knowledgeable respondents, as well as obtaining a very high response rate. Each member of the top management team received a questionnaire titled "Business Practices Survey" with questions relating to the competitive practices and strategies, competitive environment, and performance of the strategic business unit in its principal served market.

A total of 440 questionnaires were sent out with 371 usable questionnaires returned, an 84% response rate. The data was then assessed for its reliability and validity.

Discussion of the measuring scales

Like the argument in the definition of market orientation, the measuring scales developed by both parties have also been subjected to detailed academic criticism.

First of all, Oczkowski & Farrell (1997) presented the following critique with regard to MARKOR: the scale did not include consumer and intermediaries' perceptions, so revision of the scale items would be needed to reflect other stakeholders' opinion. Apart from this, the researcher also agrees that by means of the authors' effort, the resulting response rate of the study could be described as acceptable and representative. However, due to the samples only being drawn from the members of the American Marketing Association and Marketing Science Institute, firms other than these two associations could not be reached. This may lead to a problem of generalization.

Besides, after the publishing of the MARKOR scale, there were plenty of studies applying this scale as the measure of the market orientation level (for example, Pitt *et al.*, 1996; Selnes *et al.*, 1996). Based on those studies, knowledge frameworks like the relationship between market orientation and performance; the antecedences, drivers and barriers of market orientation were constructed. It was of benefit to apply the MARKOR scale in this study so that the findings of the current study could be compared with the existing ones.

Despite the attraction of the Narver & Slater (1990) measure of market orientation, their construct is too focused on the account of profitability, which is not applicable in the public school setting in Hong Kong. In contrast, MARKOR seems to be more appropriate in this context. In particular, it focuses on market rather than narrowly defined customer intelligence, emphasizes specific inter-functional co-ordination operations based on the collected intelligence and focuses on activities related to intelligence rather than its effects.

Although there were many studies and refinements worked out after the production of MARKOR (e.g. Jaworski & Kohli, 1996; Matsuno, Mentzer, & Rentz, 2000), the original version was still utilized in this study because the measure of Kohli *et al.* (1993) has been applied in a number of differing contexts. They included studies in manufacturing industries (Kaynak & Kara, 2004; Homburg *et al.*, 2004); across industries: (Avlonitis & Gounaris, 1997; Lai, 2003; Pitt *et al.,* 1996); service industries: (Raju *et al.,* 1995; Martín-Consuegra & Esteban, 2007); non-profits: (Balabanis, Stables, & Phillips, 1997); public sector: (Caruana, Ramaseshan, & Ewing, 1997) and higher education: (Caruana, 1998). The scales were checked for validity and reliability by many previous studies (e.g. Kaynak & Kara, 2004; Au & Tse, 1995; Martín-Consuegra & Esteban, 2007) – in other words, the scale was confirmed by many different contexts and industries. Many references and precautions can be found in relation to its applications because of its overall popularity. However, adaptations needed to be made before applying it.

In the above, the nature of the market orientation measurement scales and some of the debates surrounding them were discussed. Next, by means of the above conception, literature related to market orientation and organizational performance will be introduced and examined.

Market orientation and organizational performance

Positive relationship between market orientation and performance

Marketers have long assumed that there is a positive association between being "market oriented" and good company performance (see Esslemont & Lewis, 1991). In the past decades, a steady stream of research has focused on the impact of market orientation upon business performance. A summary of past empirical studies on the relationship between market orientation and business performance is presented in Table 2. As revealed by Table 2, studies have found unequivocal support for a positive association between market orientation and performance. Performance measures used in these studies range from hard measures such as return on investment, sales growth, and market share to soft measures including organizational commitment, esprit de corps and customer retention. Most of the studies in the table (from the sector of industrial to service, from private-owned to public, from West to East) show evidence of a positive relationship between market orientation and performance.

Table 2 Summary of the research relating to market orientation and performance

Sector	Study	Country	Sample	Market orientation instrument	Market orientation / performance association
manufacturing	Singh & Ranchhod (2004)	UK	93 machine tool companies	Deng & Dart, 1994; Jaworski & Kohli, 1993; Narver & Slater, 1990	Customer orientation and customer satisfaction orientation have a stronger impact on performance than the other dimensions (+). Departmental responsiveness (0).
	Homburg *et al.*'s (2004)	US & Germany	280 US and 234 German managers	Jaworski & Kohli, 1993	Implementation of a premium product differentiation (PPD) strategy (+)
	Kaynak & Kara (2004)	China	179 managers / executives	Jaworski & Kohli, 1993	Company objectives achieved (+), product development (+), reputation (+), customer retention rates (+), product quality (+), sales (+), revenue (+), and market share (+). Return on investment (0)
	Chan & Ellis	HK	73 textiles manufacturer	Narver & Slater, 1990	Company performance (+)

	(1998)				
across industries	Pelham & Wilson (1996)	US	68 small firms	Jaworski & Kohli, 1993; Narver & Slater, 1990	Competitive advantage (+), performance viability (+), Relative product quality (+), growth / share (+) and profitability (+). Market orientation, coupled with formalization and an innovation / differentiation strategy, positively affects new product success, which in turn influences growth / market share.
	Avlonitis & Gounaris (1997)	Greek	444 companies	Jaworski & Kohli, 1993	Profits (+), annual turnover (+), return on investment (+), market share (+), overall performance (+), performance against the company's competitors (+)
	Tse *et al.* (2003)	HK	573 companies	Narver and Slater (1990)	Growth rate of sales (+), customer retention (+), return on investment (+), market share (+), getting important and valuable information (+), motivating employees (+).
	Atuahene-Gima (1996)	Australia	275 companies	Ruekert (1992)	Innovation-marketing fit (+), product advantage (+), and inter-functional teamwork (+), innovation (+)
	Lai (2003)	HK	304 companies	Jaworski & Kohli, 1993	Motivation performance (+), market performance (+), productivity performance (+) and societal performance (+)
	Pitt *et al* (1996)	UK, Malta	UK: 161 Maltese: 193	Jaworski & Kohli, 1993	Return on capital (+), sales growth (+)
	Deshpandé *et al* (1993)	Japan	50 public firms	Personal interviews and literature review	Profit (+), size (+), market share (+) and growth (+)
service	Egeren & O'Connor (1998)	US	70 service firms	Narver & Slater (1990)	Organizational performance (+)
	Martín-Consuegra & Esteban (2007)	Spain	234 airlines	Jaworski & Kohli, 1993	Profitability (+), size (+), market share (+) and growth rate (+)
	Au & Tse (1995)	HK & NZ	41 HK and 148 NZ hotel	Kotler (1977)	Hotel occupancy rates (0)
	Haugland, Myrtveit,	Norway	101 hotels	Narver & Slater (1990)	Objective performance measures (modest effect), relative productivity (modest effect),

	& Nygaard (2007)				return on assets (0). Subjective performance measure (+)
	Harrison-Walker (2001)	US	122 hospitality & 54 beverage manufacturer	Jaworski & Kohli, 1993; Narver & Slater (1990)	Customer orientation is the only significant predictor of business performance. Competitor orientation and overall market orientation are not significant.
	Kumar, Subramanian, & Yauger (1998)	US	159 hospitals	Narver & Slater (1990)	Growth in revenue (+), return on capital (+), success of new services / facilities (+), success in retaining patients (+) and success in controlling expenses (+)
	Raju *et al.* (1995)	US	176 hospitals	Jaworski & Kohli, 1993	Financial performance (+), market / product development (+), internal quality (+), new product success (+), sales growth / market share (0), product quality (+), profitability (+).
Non-profit	Balabanis, Stables, & Phillips (1997)	UK	58 British charity organizations	Jaworski & Kohli, 1993	Volunteers attracted (0), present donor-market orientation has no impact on charities' performance. It is past market orientation that affects charities' performance.
Public	Caruana (1997)	Australia	134 state government departments	Jaworski & Kohli, 1993	Organizational commitment (+)
	Cervera, Mollá, & Sánchez (2001)	Spain	540 local governments	Jaworski & Kohli, 1993	Overall performance (+), citizen participation (+)
Education	Caruana (1998)	Australia and NZ	84 head of schools or departments	Jaworski & Kohli, 1993	Overall performance (+), the ability to attract non-government funding(+)

Remarks: (+) indicates positive impact

(0) indicates no significant relationship

In the following, some of the studies in table 2 were selected for more detailed consideration by using the criterion of uniqueness and representativeness of a particular industry sector.

Manufacturing industries

British machine tool industry

Singh & Ranchhod's (2004) study examined empirically the relationship between market orientation and business performance in the context of the British machine tool industry. An industry-specific market orientation scale was developed by combining the components of market orientation definitions (Deng & Dart, 1994; Jaworski & Kohli, 1993; Narver & Slater, 1990). Since these market orientation scales are American and Canadian, the authors decided that it was important to make it compatible with the UK business culture. Pretests were therefore set with a panel of five professors and lecturers in England to critically test the clarity and appropriateness. Based on the feedback received from them, 43 items were retained in the final questionnaire pertaining to market orientation. The data obtained through the postal questionnaire (the newly established industry-specific market orientation scale) were subjected to factor analysis in order to discover the underlying dimensions of market orientation. The set of data produced a four-factor solution, which accounted for nearly 67% of the variance. These four latent dimensions underlying the market orientation include: customer orientation, competitor orientation, departmental responsiveness and customer satisfaction orientation.

Five performance indicators were considered to measure business performance. This is a multifaceted construct represented by customer retention, market share, new product success, return on investment and sales growth. In this study, a subjective approach was employed due to the difficulty to obtain objective data from documentary sources. As claimed by the authors, an objective approach could not be employed because of the reluctance of firms to divulge information, which was classified as confidential.

The populations were drawn from the British machine tools and equipment directory, which consisted of 105 companies, and from the FAME-CD-ROM database. A total of 434 manufacturers of machine tools located in the UK were selected. A questionnaire and a personal letter were mailed to the managing director of each of these companies. The overall usable response rate from the first mailing was 18% (73/407) and from the second mailing was 6% (20/334) leading to a total response rate of 24%.

In order to test the relationship between each factor representing market orientation and business performance, multiple regression analysis was performed.

The findings suggested that customer and customer satisfaction orientation have significant and positive effects on business performance. Besides, competitor orientation also has a significant and positive effect on business performance. However, departmental responsiveness on the other hand did not appear to be significantly related to business performance. It appears that these companies in the sample did not place too much importance on being responsive within their functional departments. This fact is supported by the findings of the study by Robinson and Pearce (1984), which suggest that often various functions in small companies are carried out, if not by a single person, at most by very few people who have limited time and whose focus is more operational than strategic. Because the study tends to include small- and medium-sized companies, which are less likely to need formal coordination between activities, responsiveness was taken for granted. Further, in most cases, where companies have limited financial and human resources and have an inability to compete on a broad front or in a market where no substantial economies of scale exist, they resort to a focus strategy (Porter, 1985). Certainly, a focus strategy will require less inter-functional department coordination than a strategy that caters for a broad range of customers' needs from different segments.

The implications for practitioners are that it pays to be customer oriented. They should develop a customer-oriented culture (e.g. keeping the whole business informed about major customers; product lines that are driven by market research; be quick to modify products and services as per customers' needs; identify the needs of end users; and interact frequently with other departments). The findings indicate the benefits for companies that have a medium to high competitor orientation. Clearly, there is a need for cost-benefit analysis to be undertaken by managers before a competitor orientation strategy is pursued.

Manufacturing industries in urban China

Past empirical marketing strategy studies conducted in the United States and Western European countries suggested a strong relationship between market orientation and a company's performance. The objective of Kaynak & Kara's (2004) study was to investigate the reliability and validity of the market orientation construct in the very different socioeconomic, cultural, and business environment of Asia. This study investigated the market orientations of Chinese business managers who operate in a selected number of industrial and customer goods industries in urban China.

A questionnaire was developed to collect the data for the study. Market orientation scale items used in this study were mainly adopted from Kohli *et al.* (1993). The survey instrument consisted of three sections. Section 1 asked the respondents to answer 32 MARKOR scale questions to measure their market orientation. Section 2 of the questionnaire included questions about performance such as current and the past 3 years of sales in dollars, revenue growth, market share, and return on asserts in the last 3 years during which managers evaluated the performance of their organizations. Section 3 of the questionnaire included demographic and background questions. Adopted from Hooley *et al.* (2000), the questionnaire included several perceptual performance measures, which were intended to address company performance based on self-explicated responses. Finally, several other performance measures were used, such as profit growth, sales growth, market share, and the like, to see the relationship between higher levels of market orientation and better company performance.

Data for the study was collected in the capital city of Beijing, China in March of 2002. The Chinese Manufacturers' Association Beijing area membership list was used as a sampling frame. From this list of companies, 300 companies were randomly selected for the survey. A total of 179 Chinese marketing managers/executives provided data for the study.

Study results had demonstrated that the overall market orientation scale is a valid and reliable instrument to measure company market orientation in China. Analyses of the Kohli *et al.* (1993) scale produced a strong overall Cronbach's alpha (0.93). The reliability coefficients and the confirmatory factor analysis for the market orientation constructs indicated that the scale was adequate based on the criteria used in the literature. An initial attempt was also made to examine the relationship between marketing orientation and organizational performances in a transitional economy and provided empirical evidence to demonstrate the universal applicability of marketing in totally different settings. In general, the high market oriented group perceived that most of the company objectives were achieved, especially product development, reputation, customer retention rates and product quality. Moreover, companies in the high market oriented group had higher sales, revenue growth and market share. However, no significant relationship was found with return on investment.

The important point of this study to the present study is that the MARKOR scale is generalizable to business in Chinese culture; however, this is still not the same thing as Hong Kong.

Across industries

Hong Kong companies

To test the assertion empirically, Tse *et al.* (2003) looked into the nature of the correlational relationship between market orientation and company performance using sample data from firms engaging in China trade in Hong Kong. Narver & Slater's scale for measuring the extent of market orientation was tested and used. The results showed that there is a significant positive correlation between market orientation and business performance. In other words, there is a significant difference in the performance of China trade companies that are market oriented and those that are not market oriented.

The point here relevant to the present study is that the correlational relationship between market orientation and company performance is transferable to Hong Kong companies, but this was using the Narver & Slater's scale rather than MARKOR that will be used in the present study.

Quality-oriented firms in Hong Kong

Lai (2003) explores the effects of market orientation on a sample of 304 (a sample of companies was drawn from the buyer's guide of the Hong Kong Quality Assurance Agency (HKQAA), the ISO 9000 directory published by the Hong Kong Trade Development Council (HKTDC), and the list of winners and finalists of the HKMA's quality management award. These samples represented companies known to have implemented quality, and its impact on their performance). The sample consisted of 69 manufacturing companies, 107 service companies, 114 construction companies and 14 public utilities.

MARKOR was adopted by the study. However, minor modifications were made to some items in the original MARKOR scale to adjust for semantic meanings within the Eastern culture in Hong Kong. In addition, most of the measurement items in the MARKOR scale were provided with examples to facilitate the respondents' understanding of the items.

Confirmatory factor analysis was used to validate the measures of market orientation, quality management implementation and business performance. Correlation analysis was performed to determine whether market orientation is associated with quality management implementation and a firm's performance. Three aspects of market orientation (market intelligence generation, market intelligence dissemination and responsiveness to market intelligence) are found to correlate with ten critical factors of quality management implementation (people and customer management, supplier partnerships, communication of improvement information, customer satisfaction orientation, external interface management, strategic quality management, teamwork structures for improvement, operational quality planning, quality improvement measurement systems and corporate quality culture) and with four dimensions of performance (motivation performance, market performance, productivity performance and societal performance). The findings indicate that market orientation is strongly correlated with quality management implementation and business performance in a positive direction in the sampled firms.

The point here relevant to the present study is that the correlational relationship between market orientation and company performance is transferable to Hong Kong companies, even using MARKOR as the measuring instrument.

Small business companies in the United States

The purpose of Pelham & Wilson's (1996) study was to determine the relative impact of market orientation on small-business performance, compared to other influences, in an integrated model using longitudinal data. Regression models were based on a respondent base of 68 small United States firms with an average number of employees of 23 (manufacturing, wholesaling, business services and construction).

The level of market orientation was measured by Narver & Slater's (1990) construct. Performance measures (business position and profitability) are based on the president's response to questions assessing whether results were above or below expectations. Due to the nature of the sampling frame of small firms, objective measures of performance were not available due to the reluctance of private firms to divulge this confidential information.

This study shows that a high level of market orientation does seem to offer the small firm a strong source of competitive advantage and performance viability. Market orientation also is the only firm variable to significantly affect relative product quality, which is significantly associated with growth / share and profitability. Market orientation, coupled with formalization and an innovation / differentiation strategy, positively affects new product success, which in turn influences growth / market share.

The important point of this study relevant to the present study is that a correlational relationship between market orientation and company performance can be found not only in big companies, but also in small organizations. It is crucial to the present study because most primary schools in Hong Kong are relatively small in size in terms of employees..

Greek companies

The study of Avlonitis & Gounaris (1997) assessed data from 444 Greek companies. To collect the data, a detailed and lengthy questionnaire was designed. Prior to mailing, the questionnaire was extensively pre-tested in order to increase the content validity of the research instrument. For that purpose, 12 personal interviews were conducted with marketing managers who had agreed to provide assistance and comments on the development of the questionnaire.

To measure the respondent's level of marketing orientation adoption (as attitude), they were presented with 15 statements that had been found to adequately describe different attitudinal approaches to marketing orientation. MARKOR was employed to gauge the degree of marketing orientation (as behaviour) of the respondents. To evaluate the performance of the respondents' companies, subjective weighted measures of performance were employed. The respondents were asked to state the significance conceded to the following performance criteria: profits, annual turnover, return on investment and market share. Finally, the respondents were asked to evaluate their company's performance over a four-year period (in terms of profits, annual turnover, return on investment and market share) against both their performance objectives and their main competitors' performance.

The resulting data showed a statistically positive association between marketing orientation adoption and company performance and that the adoption of marketing orientation improves both performance versus performance objectives and performance vs. competition performance, as well as more importantly, its performance against a company's competitors. Thus, marketing orientation development may very well serve as a powerful and fruitful base upon which a competitive advantage can be established.

However, the empirical findings suggest that the attitude to consider marketing as the culture of satisfying customers' needs and of adapting products to the customers' needs and wants leads to specific actions that must be taken in the marketplace. In other words, unless a certain attitude is formed, these actions never emerge.

Manufacturing and services firms in Australia

Atuahene-Gima (1996) reported an empirical study of 158 manufacturing and 117 services firms in Australia to examine the influence of market orientation on innovation characteristics and performance. Market orientation was examined using a scale adapted from Ruekert (1992).

The results indicated that market orientation has significant relationships with innovation characteristics such as innovation-marketing fit, product advantage, and inter-functional teamwork but not with product newness and innovation-technology fit. Further, after controlling for the effect of these innovation characteristics, the author found that in both the product and service innovation samples, market orientation makes a significant contribution to the innovation project's impact performance, as measured by its intermediate benefits for the firm. However, it has little effect on its market success, as measured by sales and profit performance. The results did not confirm the hypothesis that market orientation will have a stronger impact on service innovation performance than on product innovation performance.

Service industries

US service firms

In Egeren & O'Connor's (1998) study, a total of 70 firms participated. Several different measures of organizational performance have been used by researchers. Their study utilized a perceptual relative performance measure. In addition to this perceptual measure, each CEO was asked in their personal interview to provide specific, objective information of financial performance. They found a significant positive relationship between market orientation and performance by using Narver and Slater's (1990) construct as the measuring gauge.

Besides, a strong positive relationship was found between top management team cohesiveness, environmental dynamism and market orientation. Past research (Duncan, 1972; Keats & Hitt, 1988) has indicated that the environment creates opportunities and threats for organizations. It influences organizational processes and decision-making. It creates uncertainty for managers which in turn affect the information processing needs within the top management team. The top management team must cope with this uncertainty by identifying opportunities, recognizing problems and by implementing adaptations. Since a strong market orientation involves higher degrees of market intelligence gathering, dissemination and implementation, it should not be surprising to see a high degree of market orientation resulting from an environment high in dynamism (Egeren & O'Connor, 1998).

Airline industry

To investigate the relationship between market orientation and business performance, several measurement instruments were used in Martín-Consuegra & Esteban's (2007) study. The MARKOR scale was utilized to measure market orientation. To measure business performance, each respondent was asked to evaluate his / her company's business results in relation to its major competitors' with respect to: profitability, size, market share and growth rate. Self-assessment measures using a five-point scale ranging from "worse than" to "better than" major competitors were used.

The scale used was subjected to standard reliability and validity checks. The evaluation of the psychometric properties was carried out in accordance with Churchill's (1979) methodological suggestions and Anderson & Gerbing's (1998) two-step approach. The results showed that the MARKOR scale possessed all the desirable psychometric properties of a valid scale. The uni-dimensionality, reliability and validity of the business performance can also be acceptable. The findings confirm that market orientation is a key element of business performance for the airline industry. The evidence indicates the positive impact of market orientation on business performance as measured by multiple variables (profitability, size, market share and growth rate).

Hong Kong and New Zealand hotel industry

In Au & Tse's (1995) study, 41 usable questionnaires were received from the survey done in Hong Kong, constituting a 59.4 per cent response rate. A total of 148 valid responses were obtained from the New Zealand sample, indicating a 59.2 per cent response rate. The first measure of market orientation consisted of 16 questions, which incorporated the modified version of Kotler's (1977) questionnaire. The second and third measures of market orientation were the numbers of full-time employees responsible for public relations and the amount of expenditure spent on public relations. A Principle Component Analysis was conducted on these dimensions to provide an index of market orientation. The measure of performance in this research was the hotel's occupancy rate. In this study, the associative relationships between each of the four independent measures of market orientation and hotel performance were studied by simple correlation analysis and dummy regression.

The principal component obtained from the factor analysis explained 65.59 per cent and 41.20 per cent of the variance for the New Zealand and Hong Kong sample, respectively. The correlation coefficients of all factors were statistically insignificant at the 5 per cent significance level. Therefore, it can be concluded that there is no apparent relationship between market orientation and hotel performance.

Although the hypothesis that market-orientation is associated with superior performance was not supported in this research, readers must be cautioned that a number of confounding variables were not included in this research. For example, size could be such a moderating factor. The larger the size of a company, the higher the chance that it can influence the market. With a higher influence on the market, the marginal utility of being more market oriented could diminish. In the extreme case of a monopoly, the company may suffer from a lower level of performance when it spends heavily on marketing, which is usually not very necessary when consumers are given no choice but to buy from the company. Besides size, market turbulence, technological turbulence, degree of competition and the general economy all interact in a complex manner which can have an enormous impact on the relationship between market orientation and company performance. Much research is required in this area to delineate the complex interplay between these variables.

The Norwegian hotel industry

The Norwegian hotel industry was the empirical context of Haugland, Myrtveit & Nygaard's (2007) study. The sampling frame included all 530 hotels registered in the database. A total of 101 samples were collected as a result.

The study applied two objective performance measures – relative productivity, calculated by data envelopment analysis (DEA) and return on assets (ROA) – and one subjective performance measure - perceived profitability compared to key competitors. DEA is a method for measuring and comparing the productivity of a sample of films. DEA calculates productivity as the ratio between input resources and output results (Banker *et al.*, 1984; Bhargava *et al.*, 1994), and the outcome of the analysis is an identification of the most productive or efficient firms in the sample.

This study applied Narver & Slater's (1990) framework and tested the possible effects of the three components of market orientation on the three performance measures.

The results indicated that market orientation has only a modest effect on objective performance measures-relative productivity and no effect on return on assets. The strongest effect of market orientation on performance occurred when applying the subjective performance measure. One of the reasons for this result is that objective measures are difficult to gather due to firms' unwillingness to disclose financial information. Another reason is that this study used a convenience sample of hotels based on the Dunn and Bradstreet database. Since it tests the market orientation – performance link from a theoretical perspective – the data came from a homogeneous sample of organizations (one industry), reducing the number of uncontrollable factors that often creates noise in cross-industry studies. However, since less attention is paid to the question of the representativeness of the sample, caution must be exercised in interpreting the results, and the study's results are not necessarily generalizable to the hotel industry as a whole or to other industrial contexts.

Hotel and beverage manufacturing industries in the United States

The data for Harrison-Walker's (2001) study was collected through a mail survey of a sample of senior level marketing executives at the sustainable business unit level of organizations in two industries: (1) hotel / motel / accommodations and (2) beverage manufacturing. The response rate from the hospitality industry was 24% or 83 sustainable business unit responses from a mailing to 351 sustainable business units. There were 122 individual responses from the hospitality industry, of which 41 were in response to the second complete mailing. The response rate from the beverage manufacturing industry was 15% or 54 SBU responses from a mailing to 352 firms.

Based on the literature review, 12 items were identified to measure business performance: time to market, customer retention, customer willingness to pay a price premium, customer propensity to spread negative word-of-mouth communication, customer propensity to alternate among brands / service providers, customer perception of product superiority, new product success, total sales dollars, growth in sales dollars, overall profitability, return on investment and market share. Respondents were also asked to evaluate business performance relative to the performance objectives set by the firm.

A self-developed instrument was used in this study to gauge the market orientation. The result of the study showed that customer orientation is the only significant predictor of business performance. Competitor orientation and overall market orientation are not significant.

Hospitals in the United States

Kumar, K, Subramanian, R., & Yauger, C. (1998) developed a comprehensive measure of market orientation from the construct of Narver & Slater (1990) and examined the market orientation-performance relationship in the health care industry. A survey of 159 US hospitals yielded a strong positive relationship between market orientation and various measures of organizational performance.

For this study, a subjective rather than an objective approach was used. The performance criteria used in this study included the growth in revenue, return on capital, success of new services / facilities, success in retaining patients and success in controlling expenses. The respondents were first asked to indicate the importance their organization attaches to various performance criteria. The respondents were then asked to indicate the extent to which their organization was currently satisfied with their performance on each of the same performance criteria.

Non-profit / charity organizations

Mokwa (1990: 43) defines non-profits as organizations that have as a main purpose "to organize and oversee voluntary social action directed at humanitarian problem solving". Their main role is:

(1) to attract resources (e.g. funds and volunteers);

(2) to establish priorities for social action programmes; and

(3) to allocate resources to beneficiaries.

Exchange is at the heart of a non-profits operation. According to Kotler & Andreasen (1991), the content of exchanges between non-profits and their "customers" involves economic costs, sacrifices of old ideas and old patterns of behaviour, and sacrifice of time and energy in return for the economic (i.e. products or services), social and psychological benefits received by the customers. Academics classify non-profits customers into two main groups: the "donors" and "beneficiaries". Resources are generated from the donor market and subsequently are allocated to the beneficiary market. The values on offer to donors in exchange for their funds, time and / or energy, are mainly psychological and social, and involve "relief of guilt", "the need of self-esteem" or "concern for humanity". Marketing's role in this context is to create and maintain these as "satisfying exchanges".

Profitability, an element of the marketing concept, was found to be a consequence of market orientation in business sectors. In non-profits, the analogy to profitability according to Kotler & Andreasen (1991) is survival, generating adequate revenue to achieve long-term organizational objectives. Drucker (1989) also indicated that non-profits do not base their strategy on money, nor do they make it the centre of their plans. The non-profits should start with the performance of their mission.

According to this view it seems that budgetary constraints do not determine strategy and market orientation. According to Kotler & Andreasen (1991), as an attribute of customer-centredness, "every effort" aimed to "sense, serve and satisfy the needs and wants" of non-profits' clients and the public within budgetary limits.

As has already been mentioned, non-profits have to create and maintain mutually satisfying exchanges between their donors and beneficiaries. However, the "market" for donors (resources) has received the greater attention, as competition for funds and volunteers has immediate relevance. In fact, the survival and organizational success of the top charities depend on their success in the donor market.

It has long been argued that a market orientation is relevant not only to profit making institutions but also to not for profit organizations. Here is an example.

The top 200 British charitable organizations

Any debate about the validity of extending the marketing concept beyond the domain of the classical commercial organization seems to have been settled. The plethora of textbooks and articles (e.g. Andreasen, 1982; Cermak, File, & Prince, 1994; Fine, 1990; Giunipero, Crittenden, & Crittenden, 1990; Lovelock & Weinberg, 1989; Rados, 1981) on the topic of marketing in non-profits has witnessed not only the acceptance of the validity of the extension but an elevation of the status of marketing in this sector. To prove this saying and further extend the idea, Balabanis, Stables, & Phillips (1997) carried out a study to measure the degree of adoption of the marketing concept, as a management philosophy, in (the top 200 British) charities, as well as the impact of market orientation on 200 British charitable organizations' performance.

The questionnaire was developed and refined in a pilot study conducted in the form of personal interviews with a sample of five charities. From this a mail questionnaire was developed and sent to the top 200 British charities, which were members of the Charities Aid Foundation. Finally 58 organizations agreed to be respondents.

In charities, the issue of performance measurement remains unresolved. In general, two criteria are used to measure non-profits' performance: effectiveness and efficiency (Lamb & Crompton, 1990). Effectiveness measures the end results and the impact of marketing on "customers". Efficiency characterizes the relationship between input and output, reflecting the amount of effort expended or waste involved. In line with this, in this research two judgmental measures of charities' performance were used: (1) the level non-profits have achieved in their short-term (annual) objectives; and (2) the degree to which they have achieved their long-term (five years) objectives. For both, a ten-point balanced (–5 to +5) semantic differential scale was used.

On the other hand, the most common measure of efficiency in charities is the expenses to donor contribution ratio. This ratio was measured for both the 1989 and 1994 periods. The difference in scores between these periods was used as an indicator of any efficiency gains or losses during this period. The increase or decrease in the amount of volunteers was calculated (difference in scores) and used as another indicator of their performance changes during this period.

Market orientation was measured by the reduced 20-item MARKOR scale. The results of this study revealed that the level of present donor-market orientation has no impact on charities' performance. It is past market orientation that affects charities' performance. The identification of a lag effect between market orientation and performance is probably the most important finding. It seems that efforts to develop a donor-market orientation take some time to yield rewards.

Another potential interference with the results is that the level of charities' dependence on donations (to the donor market) varies from charity to charity and should be taken into account. In addition, some charities tend to depend on a very small number of donors and others focus on specific categories (e.g. government, corporate) which also affects the level of their market orientation. It seems that the level of reliance on donations, donor-market size and composition of donations may be able to explain some of the observed variance in the equation.

Public Sector

Research shows an increase in the number of marketing positions that have been advertised which implies a move towards a greater customer orientation in the public sector (Graham, 1995). The payment of taxes gives citizens rights, and government departments, as custodians of citizen funds should, in a democracy, be transparent, "accountable and responsible to the people for the policies they adopt and the manner in which they implement them" (Bourn, 1992). Here is one of the studies on the public sector.

Australian state government departments

Empirical research of Caruana (1997) was undertaken among 134 senior managers (directors and CEOs) in the Australian public sector to determine whether government departments that are more market oriented have higher levels of organizational commitment.

Porter *et al.* (1974), who developed the Organizational Commitment Questionnaire (OCQ), based this on a unidimensional behavioural conceptualization of organizational commitment involving "the relative strength of an individual's identification with, and involvement in, a particular organization". Here the employee is seen to be emotionally attached, identifies with the organization and is therefore committed to pursue its goals.

Market orientation was measured using the MARKOR instrument as reported in Kohli *et al.* (1993). Their original instrument was amended to reflect the situation in government departments as against business units. To measure organizational commitment use was made of the 24-item instrument developed by Allen & Meyer (1990). The research provided empirical support for a direct link between market orientation and organizational commitment and, more specifically, between the responsiveness dimension of market orientation and the affective component of organizational commitment. In this relationship, organization size was not found to be significant. The results confirmed that a market orientation, and particularly the responsiveness dimension, is a worthwhile management goal to pursue, even in the public sector, in that it does appear to effect the affective component of organizational commitment.

Education sector

Australia's and New Zealand's Universities

Kotler & Fox (1985) were among the first to stress the importance of strategic marketing in higher education. To be able to investigate the relationship between market orientation and performance in universities, Caruana (1998) employed research that involved faxed questionnaires to 84 heads of schools or departments split equally between those that were business and those that were not business schools. Four persons were contacted at each of Australia's and New Zealand's Universities. The final questionnaire was made up of questions that consisted of a measure for market orientation, performance and classificatory variables.

Market orientation was measured using MARKOR as reported in Kohli *et al.* (1993). In line with the arguments of Mintzberg (1996), the author opted for soft measures in terms of an item capturing respondents' overall assessment of performance and another item that assessed the ability to attract non-government funding during the past five years. The results of the survey provide support for the existence of a link between market orientation and overall performance among departments in universities. Moreover, it is the responsiveness dimension of market orientation that appears to be critical to overall performance. The results also show that a market orientation has also been positively related to the ability of schools or departments in obtaining non-government funding during the last five years. This finding of the research extends the relevance of a market orientation beyond the business sector, indicating that a market orientation is also relevant to the education sector, especially in universities.

The research above although providing very strong support for the correlation between market orientation and performance in the field of education, especially using the same measuring instrument – MARKOR – it still cannot be directly applied to the present study. This is because there are many differences between the setting of universities and primary schools, including: the objective, size, human and financial resources, regulation constraints, stakeholders as well as competitors, etc.

Summary of the market orientation consequences

Table 3 summarizes the market orientation consequences into several categories. The categorization includes: financial performance, product / service quality and innovation, competitive performance, employees' response, as well as customers' responses.

Table 3 Summary of the market orientation consequences

Consequences	Authors / studies
Financial performance	
Market share	Singh & Ranchhod (2004); Kaynak & Kara (2004); Pelham & Wilson (1996); Martín-Consuegra & Esteban (2007); Harrison-Walker (2001) ; Tse *et al.* (2003)
Profitability	Pelham & Wilson (1996); Martín-Consuegra & Esteban (2007); Harrison-Walker (2001)
Return in investment	Singh & Ranchhod (2004); Harrison-Walker (2001); Kumar, Subramanian, & Yauger (1998) ; Tse *et al.* (2003)
Product / service quality and innovation	
Quality	Kaynak & Kara (2004); Pelham & Wilson (1996)
Innovation	Atuahene-Gima (1996)
New product / services success	Singh & Ranchhod (2004); Kaynak & Kara (2004); Pelham & Wilson (1996); Avlonitis & Gounaris (1997); Harrison-Walker (2001) ;Kumar, Subramanian, & Yauger (1998)
Competitive performance	

Competitive advantage	Pelham & Wilson (1996); Avlonitis & Gounaris (1997)
Product differentiation strategy	Homburg *et al.* (2004)
Employees' response	
Organizational commitment	Caruana (1997); Jaworski & Kohli (1993)
Motivation	Tse *et al.* (2003) ; Lai (2003)
Teamwork	Avlonitis & Gounaris (1997); Lai (2003); Jaworski & Kohli (1993)
Customers' responses	
Reputation	Kaynak & Kara (2004)
Customer retention	Singh & Ranchhod (2004); Kaynak & Kara (2004); Lai (2003); Harrison-Walker (2001); Subramanian & Yauger (1998); Tse *et al.* (2003)

Most researchers in table 3 had predicted a positive relationship between market orientation and performance, although the results are mixed. Other than those positive impacts, several studies did not support a directly positive relationship between performance and market orientation, especially for those using objective measures of performance as the dependent variables.

To sum up, the relationship between organization performance and market orientation was proved to be highly correlated. However, it may vary depending on industry characteristics, customer characteristics and the type of performance measure used.

There is considerable discussion about the role of market orientation and its effect on performance. While there are a number of studies linking market orientation and performance in business and industry (Jaworski & Kohli, 1993; Narver & Slater, 1990; Narver *et al.*, 1992; Ruekert, 1992), the role of market orientation in elementary education has received no attention. The body of research on market orientation is an excellent example of researchers undertaking replication of previous work in order to develop generalizations about their topic of interest. To carry out research about the market orientation construct in different fields besides private organizations, and following the proposal made by current researchers, this study is an attempt to transfer market orientation to the field of elementary education. In the following, before investigating what variables may affect the development of market orientation, some analysis of how market orientation may lead to better school performance will be discussed first.

Drivers of and barriers to market orientation

Some organizations are more market oriented than others. Existing research into the study of the different variables that may affect an organization's market orientation have had five main themes. First, a considerable amount of theory concentrates on the analysis of the organizational structure. Secondly, a number of studies focus on various systems of the organization and thirdly, the organizational culture. Fourthly, a major trend is the study of management behaviour and leadership style. Finally, an ongoing research theme focuses on strategy. A brief overview of research in these areas is presented in table 4.

Table 4 Summary of the research relating to the antecedents of market orientation

Categories	Drivers	Barriers	Research
Organization structure	Connectedness	Centralization; departmentalization	Jaworski & Kohli (1993); Selnes *et al.* (1996); Harris (2000); Matsuno *et al.* (2002)
System		Limited training procedures about market orientation	Wong *et al.* (1989); Ruekert (1992)
		limited budgeting; limited inter-functional co-ordination systems; unclear marketing objectives	Wong *et al.* (1989)
Organizational culture	Innovative; entrepreneurial culture;		Conrad (1999)
	power culture; organizational communication emphasis	Constructive culture; competition and utilizing one's power culture	Oakley (2002)
Management behaviour		The sheer difficulty in attempting to change traditional thinking	Wong *et al.* (1989)
		formalized, conflictual or politically motivated	Harris & Piercy (1999)
	Participative and supportive leadership;	Instrumental leadership	Harris & Ogbonna (2001)
	top management place emphasis on market		Jaworski & Kohli (1993)

	orientation		
Strategy	Prospector and analyzer pro-activeness, analysis and futurity	Defender	Slater & Narver (1993) Morgan & Strong (1998)

Organizational structure and market orientation

The structure of an organization may either enhance or impede the implementation of a market orientation. The related studies have been selected and presented in table 5.

Table 5 Summary of the research related to organizational structure and market orientation

Research	Method	Sample	Findings
Jaworski & Kohli (1993)	Multiple linear regression	Two national samples comprised primarily of senior managers	Connectedness promotes a market orientation and centralization serves as a barrier to market orientation
Selnes *et al.* (1996)	Multiple linear regression	A Scandinavian sample with data from 237 business units	Connectedness was found to promote a market orientation; neither centralization nor formalization was significantly related to market orientation.
Harris (2000)	Multiple linear regression	107 store managers for large UK retailing organizations	Negative relationship between centralization and market orientation
Matsuno *et al.* (2002)	Structural equation modelling	364 marketing executives for manufacturing firms	The path from departmentalization to market orientation was found to be negative and significant. The paths from formalization and centralization to market orientation were identified as non-significant.

Generally, research to date suggests that both formalization and centralization are inversely related to use of market information (Hage & Aiken, 1970; Zaltman, Duncan, & Holbek, 1973), where connectedness promotes a market orientation (Jaworski & Kohli, 1993; Selnes *et al.,* 1996). Similarly, Lundstrom (1976) and Levitt (1969) discuss departmentalization as a barrier to communication. As Stampfl (1978) argues, the inverse relationship of formalization and centralization to market orientation is because they will weaken the organizational responsiveness. The above notions were supported by Lichtenthal & Wilson (1992). They suggested that structural distance influences the potential and speed of market-oriented change to the extent that structurally distinct organizational components may be unaffected by efforts to change.

To conclude, it is proposed that an organization's structure directly impacts its degree of market orientation and that the organization's degree of market orientation enhances its performance. Integration, decentralization and decreased specialization support increased market orientation.

Organizational system and market orientation

Morgan & Piercy (1991) conducted a study of the difficulties in developing marketing in professional services and found that several elements including limited budgeting for market orientation and inter-functional co-ordination systems may impede the development of market orientation. Ruekert (1992) also undertook a study of the relationships between organizational systems and market orientation and found that the extent of organizational market orientation is positively associated with organizational practices including recruiting, training and rewarding of personnel. Liu (1995) suggested that organizational control mechanisms are associated with market orientation. He argued that the way in which an organization exerts control over people and processes may act as an impediment to developing market orientation.

Organizational culture and market orientation

Other than the structural and systematic issues, the organizational culture is another determinant for the development of market orientation. Organizational culture can be described as a "complex set of values, beliefs, assumptions, and symbols that define the way in which a firm conducts its business" (Barney, 1986: 657). Cooke & Rousseau (1988: 248) define culture as "the ways of thinking, behaving, and believing that members of a social unit have in common".

However, what kind of culture will favour or inhibit the development of market orientation? The analysis of the barriers to market orientation in Harris (1996) revealed that some beliefs and practices that existed in the organization may be the inhibitors to market orientation. They included: narrow perception of their domain and activity, contradiction between long-term performance and short-term success as well as environmental orientation.

Narrow perception of their domain and activity: organizational members had a particularly narrow perception of their domain and activity. Deviations from these domains were viewed as irrational, intrusive and unfair. However, achieving a market orientation requires a voice for the consumer and a focus on the market environment, and in a culture where cooperation is the norm, such a voice may never take shape or be heard. Following this thread, Oakley (2002) claimed that a constructive culture may not support a market orientation. Rather, a power culture where competition and utilizing one's power are the norm may be better suited to achieving such market orientation.

Messikomer (1987) in a study of the difficulties encountered by Du Pont in developing a market-oriented culture, found that managers and executives often espouse the notion of improving market orientation levels but behave in a different manner. Messikomer (1987: 53) claimed that such "illogical" behaviour is caused by entrenched cultural beliefs and concluded that "the difficulty often is not so much in getting management to accept this vision, but rather in overcoming the inertia bred of individual corporate cultures". The findings of Messikomer (1987) were consistent with the research of Wong *et al.* (1989). To put the ideas above more practically, Wong *et al.* (1989) worked out an exploratory study on how some British companies achieve stronger market orientation. Wong *et al.* (1989: 45) found that the most common barrier to market orientation cited by functional managers was "the sheer difficulty in attempting to change traditional thinking and practices or the self-interests of staff within their units".

Contradiction between long-term performance and short-term success: Harris (1996) in his study found that some organizations assume that long-term performance is dependent on short-term success. But Lear (1963) contended that while a focus on the market is beneficial to the customer, the policy creates short-term efficiency problems. This contradiction hindered the implementation of market-oriented policy.

Environmental orientation: some organizations assume that their sizes are so small that they are merely a follower of larger ones' strategies and initiatives. Moreover, they may assume that the marketing environment is so dominated by large organizations that the analysis of factors beyond competition is futile.

To sum up the above, as claimed by Kasper (2002), a market-oriented culture should be open, professional, pragmatic and balanced between a tight and loose control system, providing a clear strategic and operational framework within which empowered employees may work and make decisions themselves to create value for their satisfied customers. This is because a cultural feature of openness goes along with knowing the customer well, a strong drive to be the best, own work being important to accomplish the company's customer friendliness and service, and not with employees pursuing their own self-interest.

It is true that changing the organizational culture to one that supports a market orientation is a long-term effort that is fraught with difficulty and potential conflict. The culture of an organization is not something tangible where changes are readily apparent. However, managerial practices are factors over which managers have control and can change relatively quickly. Previous theory has identified that the relationship between managers and employees is an extremely effective method of disseminating information and is a powerful means of transmitting culture, beliefs, and attitudes (Church, 1995). Hence, if an organization wants to change its culture, it should start by changing its managerial practices.

Management behaviour and market orientation

Much of the research into the barriers to market orientation has focused on more tangible organizational attributes. For example, Ruekert (1992) concentrated on systems and processes, while Jaworski & Kohli (1993) focused on the interactions between functional departments and the characteristics of organizational systems. In fact, several areas of theory suggest that organizational leadership affects the development of market orientation in a number of ways. Jaworski & Kohli (1993) also found that the emphasis top management place on market orientation greatly affects each component of market orientation.

Harris & Piercy (1999) conduct and analyze a small survey of UK retailing companies. Briefly, their findings indicate that management behaviour which is formalized and conflictually or politically motivated is negatively associated with the extent of market orientation. Their explanation is that managers focus on internal issues of organizational politics, in an organizational context characterized by friction and, where formal interaction is more common than informal, are likely to neglect the market.

In the further study of the relationship between leadership style and market orientation, Harris & Ogbonna (1999) contribute empirical verification that leadership style is a critical antecedent of market orientation. They found that instrumental leadership constitutes a key barrier to market orientation whilst participative and supportive leadership styles are pivotal facilitating factors. The results of the study indicate that leaders with supportive or participative styles may provide an appropriate environment in which market-orientated culture change may be possible. In line with this, given Kasper's (2002) findings, market-oriented organizations probably need leaders acting as employee-oriented leaders with a concern for empowered people, achievement-oriented leaders, democratic leaders, and leaders with a delegating, participative, supportive or coaching style. The same as Harris & Ogbonna's (1999) finding, autocratic and instrumental leaders may be typical for non-market-oriented cultures. In this sense, an understanding of these leadership styles is crucial to the ongoing process of market orientation development.

Strategy and market orientation

Slater & Narver (1993) conclude that for prospector and analyzer business units, a market orientation is significantly related to performance, whilst defender style strategic behaviour moderates the link between orientation and performance (defender type organizations being characterized by a low level of pro-activeness, a concentration on low-cost strategy and a broad market focus). The theme of research into strategic type is continued by Morgan & Strong (1998) who conduct a study of the links between the market orientation and the six traits of strategy proposed by Venkatraman (1989). Morgan & Strong (1998) found that the strategic traits of pro-activeness, analysis and futurity are all positively linked to market orientation whereas the aggressiveness, defensiveness and riskiness dimensions are not significantly related.

The preceding literature review has discussed a number of studies which examined the barriers to and drivers of market orientation in fields other than education. However the antecedents for primary schools to market orientation remain understudied. Since research into the barriers to market orientation in other business may not be applicable to the elementary educational sector the intention of this study is to supply contemporary evidence of the antecedents to school market orientation.

Research questions for the quantitative phase

The main target of the first quantitative phase of the present study is to measure the level of market orientation in Hong Kong primary schools. So the first research question is:

1. What is the level of market orientation in Hong Kong primary schools?

To target these aims, the properties of the newly established measuring instrument – Ed MARKOR scale – needed to be explored. The following research question is therefore related to the factor structure of the Ed MARKOR scale:

1.a Is the factor structure in Hong Kong primary schools the same as for other business units on the issue of market orientation?

After getting the general market orientation level of Hong Kong primary schools, the next target of the present study is to discover variables that may affect schools' market orientation level. In the literature review section, some existing research into the study of the different variables that may affect an organization's market orientation was discussed. The variables included organizational structure, systems of the organization, organizational culture, management behaviour and strategy. Stimulated by the literature and adhering to the reality of the Hong Kong primary school setting, as well as being bounded by the constraints of data gathering from the quantitative study, attention in the quantitative phase was especially paid to the following areas: structure and the stability of the schools, cultural factors within teachers and the personal factors of the teachers. As a result, the following research question was established:

1.b Which of the available variables (average teaching experience, longevity, size, religion and stability of the school) affect the market orientation level of primary schools in Hong Kong?

It should be noted that the factors posed should not be taken as exhaustive. They represent a point of departure only for probing the phenomenon of Hong Kong primary school market orientation. It is assumed that other aspects may be discovered during and after the process of the study. Since the present study was combined from two phases, after the general exploration of factors related to the development of school market orientation in the first quantitative study, some more detailed and focused research questions may arise to give guidance to the second phase of qualitative study.

CHAPTER THREE

METHODOLOGY OF THE MIXED METHOD STUDY

Objective of the research

The main purpose of this study was to fill a knowledge void in school market orientation in Hong Kong primary schools. The refined objectives of this research were threefold: first of all, based upon the model developed from the business world, the aim was to create an effective market orientation survey instrument for primary schools in Hong Kong. Secondly, the objective was to apply the derived instrument quantitatively, to discover the factors affecting market orientation development in Hong Kong schools. Subsequently, a qualitative research design which was based on the findings in the first quantitative stage was employed to find out other hindrances and reinforcements, and the way they influence the market orientation development in schools.

Before going into the above mentioned procedures, the underlying beliefs of using a mixed method as the current study will be discussed first.

Pragmatic Paradigm for utilizing a mixed method

There is agreement that the "third wave of methodology" is particularly well-suited to a pragmatic approach where methods are driven by the research questions (Tashakorri & Teddlie, 2003). For pragmatists (e.g. Meade, Dewey), the critical factor was the problem, not the research method used, because researchers would use all approaches necessary to understand the problem (Creswell, 2003). Creswell (2003) suggested that this paradigm was not committed to any one system of philosophy or reality and that individual researchers were free to choose the qualitative or quantitative method, techniques, and procedures of research that best meet their needs and purposes. Other scholars like Patton (1990) also suggested that different methods produced different information, and the challenge for the researcher was to find out which information was most needed and most useful for that research problem and then to employ those methods best suited to producing the needed information.

Rationale for a mixed method approach

This research combined both quantitative and qualitative methodologies to investigate the factors affecting market orientation development in Hong Kong primary schools. This combination of methodological approaches is referred to as a mixed method design (Creswell, 2003). Mixed method data collection and analysis strategies are those that are explicitly designed to combine elements of one method, such as structured survey, with elements of other methods, such as interviews, observations, or focus groups in either a sequential or a simultaneous manner (Edin, 1999; Fricke, 1997; Pearce, 2002).

There are plenty of advantages of using a mixed method. Jick (1979) was the first to combine qualitative and quantitative data to study anxiety and job insecurity during organizational mergers. Jick combined interviews, surveys and observations and found the results provided greater confidence in the generalizability of the study because different data collection methods built on the strengths of and compensated for the weaknesses of the different methods. Patton (1990) also used a variety of methods to ensure the credibility of the analysis and interpretation of the research. In addition, the triangulation of data obtained by these methods contributes to the reliability, validity and trustworthiness of a study. The concept of triangulation is based on the assumption that any bias inherent in a particular data source, investigator or method is nullified when used in conjunction with other sources of data, investigators, or methods (Jick, 1979; Lincoln & Guba, 1985; Yin, 1994). Now, mixed method designs go far beyond only the purpose of triangulation. In fact, Greene, Caracelli, & Graham (1989) suggested several purposes for using mixed method designs. The other purposes were (1) complementarity, or examining overlapping and different facets of a phenomenon; (2) initiation, or discovering paradoxes, contradictions and fresh perspectives; (3) development, or using the methods sequentially, such that results from the first method informed the use of the second method; and (4) expansion, or adding breadth and scope to a project. In other words, the approach was more efficient in answering research questions than either the quantitative or qualitative approach alone.

The term mixed methods is not limited to the use of multiple methods to collect data. Rather, it typically refers to both data collection techniques and analyses because the type of data collected is so intertwined with the type of analysis that is used (Tashakorri & Teddlie, 1998: 43).

Challenges for a mixed method approach

Though mixed method research could result in a more complete picture of a research problem, this type of design is not without challenges. Creswell (2002) noted that mixed method designs require more data collection than qualitative or quantitative studies. Besides, the costs for data collection, the time and skill necessary to analyze text and numeric data make these studies harder to achieve.

A Two-Phased explanatory mixed design

There are three basic mixed method designs – triangulation, exploratory and explanatory. In triangulation, the researcher gathers both quantitative and qualitative data, compares the results from both data sets, and makes an interpretation as to whether the results from both support or contradict each other (Creswell, 2002). The exploratory design begins with qualitative data that explores a phenomenon and quantitative data is used to "explain the relationships found in the qualitative data" (Creswell, 2002: 567). The explanatory design is a two-phase model where one first collects quantitative data and then collects qualitative data to "help explain or elaborate on the quantitative results" (Creswell, 2002: 566). The rationale is that the quantitative data and results provide a general picture of the research problem and qualitative data refine, extend or explain the general picture.

Employing Creswell's (2003) typology of mixed method research, this study employed the explanatory mixed sequential strategy, although some functions of triangulation may be expected. In this study, the collection of quantitative data preceded qualitative data collection. Data from the quantitative phase was analyzed to help guide the development of the qualitative phase. Following the analysis of qualitative data, all findings were considered for the interpretive phase of the study. As recommended by Tashakorri & Teddlie (1998), the two-phase design is the simplest of the sequential mixed method approaches.

To conclude, a mixed method approach was deemed the "best fit" for this study due to the grounding of the research questions within a particular set of theoretical assumptions, and the opportunity to combine complementary methods that would address the research questions more meaningfully (Tashakorri & Teddlie, 2003).

Ethical considerations for the quantitative study

The researchers had the responsibility to be mindful of cultural, religious, gender, and other significant differences within the research population in the planning, conduct, and reporting of their research. Therefore, random selection of the data was used. In this study, the research samples were drawn from the school lists (by district) (2007/08) (Last updated: March 2008) which are presented on the official website of the Hong Kong Education Bureau. Simple random sampling was used in this research. Simple random sampling is defined as that in which (1) the probabilities of the selection are equal for all elements, and (2) sampling is done in one stage with elements of the sample selected independently of one another.

The researcher also abided by the principle of consent when recruiting respondents for the study. A cover letter was used to introduce the researcher, the objectives of the research and the importance of the survey to those people who were to receive invitations to participate in the study. To ensure anonymity, respondents were promised that any identifying information would be destroyed after the data-analyzing stage. Besides, the identification of respondents was by code number rather than by name. No one would know which schools had participated in the study except for the researcher and the school itself. Furthermore, variables would be collapsed or combined to provide summary measures to mask what otherwise would be identifiable information. The researcher also ensured that the data was kept securely and that the form of any publication, including publication on the Internet, would not directly or indirectly lead to a breach of agreed confidentiality and anonymity. The researcher also complied with the legal requirements in relation to the storage and use of personal data as set down by the Data Protection Act (1998) and any subsequent similar Acts. In essence, people were entitled to know how and why their personal data was being stored, to what uses it was being put and to whom it might be made available. The researcher had to have participants' permission to disclose personal information to third parties and was required to ensure that such parties were permitted to have access to the information. They were also required independently to confirm the identity of such persons and to keep a record of any disclosure. Disclosure might be in the form of written, electronic, verbal or any visual means.

In the process of data analysis, steps were taken to ensure the integrity of the data and the analysis. They included consulting with the dissertation supervisor and cross-checking the quantitative results with the later qualitative study.

It was understood that ethical responsibility continues throughout the research process. If further issues arose as the research progressed, it was appropriate to cycle again through the above process (a list of ethical concerns appear in Appendix 3).

Since the current study design used a mixed method, it was quantitative at first and qualitative later. Therefore, in the next chapter, the design, process, results and discussion of the Phase I quantitative study will be described first, followed by a detailed presentation of the Phase II qualitative study.

CHAPTER FOUR

METHODOLOGY OF THE PHASE I QUANTITATIVE STUDY

Description of the term 'Quantitative strategy' used in this study

In terms of Bryman (2001), quantitative research could be construed as a research strategy that emphasizes quantification in the collection and analysis of data and that firstly, it entails a deductive approach to the relationship between theory and research, in which the accent is placed on the testing of theories; secondly, it incorporates the practices and norms of the natural scientific model and of positivism in particular; and finally it embodies a view of social reality as an external, objective reality.

Rationale for Using Quantitative Research

Bryman (2001: 66) in his book aroused a question: what are the reasons for the preoccupation with measurement in quantitative research? In this study, the reasons were firstly that measurement allows us to delineate fine differences between people's perceptions in terms of the characteristics in question – market orientation. Although we can often distinguish between people in terms of extreme categories, finer distinctions are much more difficult to recognize. In this study, market orientation is a new and ambiguous term for teachers. It would be more helpful if finer distinctions could be made for further investigation. Secondly, measurement gives a consistent device or yard stick for making such distinctions. A measurement device provides a consistent instrument for gauging differences. This consistency relates to two things: an ability to be consistent over time and to be consistent with other researchers. Whereas there was no information about the market orientation level in schools, as well as no instrument to measure the market orientation level in schools, a quantitative measurement to verify a measurement device - the Ed-MARKOR scale - to measure market orientation in schools would be very beneficial for future development. Finally, measurement provides the basis for more precise estimates of the degree of relationship between concepts. In this study, by means of combining the information gained from the internet, the researcher could be sure that some relationship could be drawn from the appropriate statistical methods used.

Research design

Survey design research

A survey research design was considered appropriate for this study for several reasons: 1) survey research has an advantage in collecting perceptual data from a large population, 2) survey data is easily quantifiable and amenable to statistical analysis and hypothesis testing, and 3) several measures have been developed by previous researchers for survey design, and replication and extension of past studies is an important aspect of this dissertation (Marshall & Rossman, 1989).

Self-Administered and postal survey

This study employed the survey method, which made use of a questionnaire. There are many types of survey method but in this case postal survey was selected as the means for data collection, for several reasons. Firstly, this method enabled the researcher to cover a wider geographic area, larger samples and wider coverage within a sample population. Secondly, this method is a low-cost form of data collection and processing (Oppenheim, 1992). Thirdly, self-administered questionnaires could eliminate interviewer bias. Fourthly, surveys using postal and other self-administered questionnaires are much easier to implement than other kinds of surveys because there is no need for the researcher to supervise the data collection, so the number of personnel needed is substantially lower. Moreover, self-administered questionnaires have shorter and simpler structures than the kinds of questionnaires used in interview surveys, so once the data has been obtained, fewer personnel and less complicated procedures are required to process them. In contrast to telephone interviewing, and particularly computer-assisted telephone interviewing, minimal equipment is needed to conduct a survey by mail. Lastly, many researchers argue that people are more likely to give complete and truthful information on sensitive topics – like the one in this study – market orientation, in a self-administered questionnaire than in an interview (Bourque & Fielder, 2003).

Disadvantages of postal surveys

Nevertheless, the postal survey method also has some disadvantages. First, postal surveys provide no opportunity for the researcher to correct misunderstandings or to probe, or to offer explanations or help. Second, the researcher cannot control the order in which questions are answered or check incomplete responses, incomplete questionnaires or the passing on of questionnaires to others. Third, there is no opportunity to collect ratings or assessments based on observation (Oppenheim, 1992). One other factor must be considered in postal surveys – the time required to complete the survey. Assuming one allows four weeks between mailings, more than two months will pass before the last responses trickle in. If additional personal follow ups are then required, an additional two months are necessary.

Despite the above shortcomings, the most obvious drawback is the problem of non-response, which commonly can be as high as 70-80 per cent (Mallhotra *et al.* 1996; Aaker & Day, 1980). In order to minimize the non-response issue, the following procedures (as recommended by Aaker & Day, 1980; Mangione, 1995; Oppenheim, 1992) were applied in this current study:

1) A cover letter was used, introducing the researcher, the objectives of the research and the importance of the survey.
2) The cover letter was personalized by putting the name of the Principal / English panel chairperson on each of them.
3) Participants were offered a copy of the summary of research results if they completed and returned the questionnaire.
4) To ensure anonymity, respondents were promised that any identifying information would be destroyed after the data-analyzing stage. Besides, respondents were identified by a code number rather than by name.
5) Postal surveys tended to suffer from slow response rates, so reminders were sent out when the rate of returns began to drop.
6) A postage-paid reply envelope was enclosed for each questionnaire.
7) Personal contacts were made by the researcher to the principals by phone.
8) The respondents were guaranteed that all survey data would be treated as confidential, in the sense that only the researcher would have access to them, and steps were taken to ensure that no information would be published about identifiable persons or organizations without their permission. For example, the following was displayed in the invitation letter:

> I understand that confidentiality and anonymity are vital principles in this exercise and I pledge to strictly adhere to them: no names of the research participants and concerned schools will be disclosed in any report produced for this research without the express permission of the school. Only I will have access to the original data collected.

The motivation strategy for increasing the response rate

Apart from the above actions, further efforts for the achievement of a higher response rate were executed after the pilot study. In this study, while questionnaires were distributed to respondents at the same school, an explanation appeared on the covering letter (see Appendix 4, 5). The following elements suggested by Bourque & Fielder (2003: 114 – 115) were included in this study to motivate respondents:

1) Use of the University Letterhead to enhance the credibility of this research

project

2) Salutation

3) Information on the purpose of the study

4) Reasons for individuals' participation

5) Realistic estimate of the time required to complete the questionnaire - about 10 minutes in this study.

6) Information on incentives being offered to encourage respondent participation

7) Information on how and why the respondent was chosen

8) Explanation of confidentiality and how the data will be handled

9) Provision of a name and phone number to call for information

10) Information on when and how the respondent should return the questionnaire

Apart from these, the surest way to increase the response rate was through follow ups – by re-contacting potential respondents to remind them to complete the questionnaire and mail it back. In this study, the researcher used reminder letters (see Appendix 6, 7) and telephone calls. In the initial follow-up letter, the researcher indicated the possibility that the respondent had already completed and mailed the materials and apologized for any nuisance the follow-up mailing might cause. The researcher also offered the respondent an excuse for not responding, followed with a reassurance that all the respondent needed to do was call and another packet would be sent. Besides, the researcher also administered the questionnaires personally in most of the sampled schools to give explanation to teachers who were completing questionnaires in a language not their own. Besides, the researcher also administered the questionnaires personally in 40 out of 44 of the sampled schools to give explanation to teachers who were completing questionnaires in a language not their own. The four schools that I did not visit because the schools were unwilling to allow me in were assisted by their English panel chairpersons when teachers had difficulties in completing the questionnaires.

Sampling Method

The present quantitative research used a cross-sectional study design. A cross-sectional design involves the collection of information from any given sample of population elements only once (Malhotra, 1996). Kumar (1996) explained that this design was suitable for studies that aimed to analyze a phenomenon, situation, problem, attitude or issue by considering a cross-section of the population at one point in time. In fact, the advantage of this method was that it is cheaper and less time-consuming than a longitudinal design. In fact, the majority of extant market orientation studies have employed cross-sectional designs (e.g. Narver & Slater, 1990; Jaworski & Kohli, 1993).

In this study, the research sample was drawn from the school lists (by district) (2007/08) (Last updated: March 2008) which is presented on the official website of the Hong Kong Education Bureau.[2] The list provides the names, fax number, telephone numbers and the name of the principals. It was considered to be the most appropriate source to be used for this study, because it is the most up-to-date source in that time which covers all registered schools in Hong Kong. It is reliable since it was created by an official department of the Hong Kong government – The Education Bureau of Hong Kong.

As introduced in Chapter 1, primary schools were the focus of this study because first and foremost, primary schools were attacked by the first wave of the decreasing student population and the competition between them has become so vigorous and vital. Understanding the responses of primary schools could provide some good references for the secondary schools that may face the same problem several years later. Secondly, aided schools were selected as the subject of this study because first of all they represent the largest portion (75%) of Hong Kong primary education. Secondly, unlike private and international schools which have already fought for students by themselves since they were founded, before the year 2000, most aided schools enjoyed enough student enrolments, and they can receive enough student quotas by the distribution from the former Education Department (now, Education Bureau) of the government. The environmental change after the turn of the millennium in aided schools has created a very interesting topic for investigation. Last, government schools were not included because of the different job protection of the teachers. The effect of student shortage is not the same for teachers in government and aided schools. Direct-subsidized schools were also not included because they have more flexibility in management structure and new curriculum implementation when compared with aided schools, and they can charge student fees to enhance their quality.

After the definition of population, simple random sampling was used to select the participating schools. Simple random sampling is defined as that in which (1) the probabilities of the selection are equal for all elements, and (2) sampling is done in one stage with elements of the sample selected independently of one another, in

[2] http://www.edb.gov.hk/index.aspx?nodeID=163&langno=1. (accessed on 6th December, 2008)

contrast to more complex samples in which the selection is done in two or more stages and in which clusters rather than individual elements are chosen.

A database of 432 which included all aided primary schools in Hong Kong was then made. They were ordered alphabetically and a number was given for each school. A piece of freeware software from the internet called "Random Number Generator[3]" was applied to generate a sequence of numbers. As a result, the order of schools for invitation were drawn randomly through this process.

Sample Size

The required sample size for research using factor analysis as a form of analysis is over 200. The other way to determine the sample size for research using regression analysis is to calculate the ratio of cases per independent variables. Green (1991) suggested that a desirable sample size should be more than or equal to 50 + 8m (m is the number of independent variables) for testing the multiple correction, and N=104 + m for testing individual independent variables. In addition, Hair *et al.* (1998) pointed out that sample size could also affect the generalizability of the results by the ratio of observations to independent variables. The desirable ratio should be between 15 - 20 observations for each independent variable. However, it is acceptable if the ratio is as low as five to one. The target size of the sample for this study was 10 percent of the overall 491 aided schools in Hong Kong, i.e. approximately 50 schools (Hair *et al.* 1998).

After selecting the participating schools, several teachers within each participating school were invited. Since the number of teachers is not the same in different schools and only English and Mathematics teachers were invited, about 10 - 20 teachers per school, i.e. over 500 teachers were selected to be the respondents. Given the paragraph above, the sample size of 500 teachers for this study exceeded the acceptable numbers for the analyses. The method used in selecting individuals was cluster sampling.

The reasons for sampled English and Mathematics teachers as the respondents were as follows:

1) To eliminate the bias from only examining a single subject.
2) As these are compulsory subjects, they would have enough teachers.

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[3] http://www.random.org/integers/

3) The number of English and Mathematics teachers would be directly proportional to the whole number of teachers. It was fair enough for there to be more participants in a large school than a smaller one.

4) There was a group leader – the panel head of English and Mathematics department, who could act as a coordinator of this study within their school.

5) English and mathematics teachers could be in any position with different rankings; therefore, it originally could act as random sampling.

Development of the Ed MARKOR scale

The MARKOR scale developed by Kohli & Jaworski (1990) (see Appendix 1) had been published and previously used widely in the field of business but not education. Modifications of the items were then considered to be necessary because some items in the MARKOR scale describe the situation only in business but not in schools. The researcher therefore re-worded some items and made them more appropriate for use in the schools context. The process and items of change will be described in more detail in the coming section. The refinement and use of MARKOR in this study was conducted with the permission of the original scale's author, Professor Kohli (see Appendix 8). Data was collected through the use of the Ed MARKOR scale (see Appendix 9).

Pre-tests of the Ed MARKOR scale

There was iterative pre-testing for the development of Ed MARKOR scale. In summary, there were 20 teachers in total who participated in four pre-tests. In the pre-tests, participants were asked to complete the Ed MARKOR scale and point out any item that was either ambiguous or otherwise difficult to answer. They were invited to critically evaluate the items for their clarity, bias and relevance to the primary school setting. They were also asked to comment on the instrument with regard to wording, sequencing and timing.

After the above procedure, many items of the original design were changed due to their comments. From these efforts, 30 items were modified from the original 32-itemed MARKOR scale which rated on a five-point Likert scale for their appropriateness and uniqueness. This list included nine items pertaining to generation, nine pertaining to dissemination and 12 tapping the responsiveness component. The detail of each alteration and reasons behind it are shown in Appendix 10. To reduce the risk of bias, the pre-test group was excluded from participating in the actual sample of the research.

The pilot study

Before initiating the whole study, a school was invited to participate in a trial run of the study. They included one Panel chairperson, one principal and ten teachers who belonged to the same school. The aim of doing this pilot test was to find out which ways could help participating schools and teachers to finish the tasks and also how to increase the response rate. The procedure of the distribution, the invitation letter and covering letter were open for consultation. They were asked to give feedback on the whole procedure and the related documents.

The findings of the trial run are reported here. Firstly, the participants found that the personalized letters with their full names rather than the universal letter suitable for all were respectful towards them. They would make them more willing to participate. Secondly, they agreed that the researcher and the purpose of the research were clearly identified in the covering letter. Thirdly, they agreed that setting a deadline for replying was good for them because they had a target to meet and there was no need for them to think and explain to their members when they should complete the questionnaires. Fourthly, the small return envelopes made them have confidence that the survey was professional. This was a very crucial issue to increase their willingness to respond. Finally, the returned envelopes with stamps enhanced the response rate because people did not want to waste them.

CHAPTER FIVE

RESULTS AND DATA ANALYSIS OF THE QUANTITATIVE STUDY

All data was coded and entered by the researcher into SPSS (Statistical Package for the Social Sciences, Version 10.0) data management software. Both descriptive and inferential statistical analyses were undertaken.

The research results are presented in this chapter and in several phases. First, the nature of the sample and sampling issues are discussed. Second, reliability issues in regard to the measurement instruments are presented. Finally, the empirical results of the statistical model are reported.

The Sample

General

There were 432 aided primary schools in Hong Kong. 62 schools were selected randomly and contacted. Finally 44 schools agreed to participate, including 538 teachers. The response rate was 71% (44 out of 62 schools) and the sample rate was 10.2% (44 out of 432 schools). In total 738 English and Mathematics teachers were invited to complete the questionnaires. (The number of English and Mathematics teachers in each school was reported in the reply slip.) A total of 538 teachers finished and returned the questionnaires. The response rate was 73% (538 out of 738 teachers). This data is reported in Table 6.

Table 6 The response rate of English and Mathematics teachers

	Sample	Response rate
Schools	44	10.2%
English teachers	262	75.1%
Mathematics teachers	276	71.0%
Total teachers	538	72.9%

Profiles of organizational and teacher characteristics of the samples were attached (see Appendix 11).

Test between the response from English and Mathematics teachers

A t-test was conducted on the average ratings of English and Mathematics teachers, to find out whether they responded differently on the Ed MARKOR. No significant difference was found ($t = .28$, $df = 536$, $p = .78$). Thus, English and Mathematics teachers' ratings were not considered separately in any of the subsequent analyses.

In this study, 44 schools were located in 17 out of 18 different districts. The distribution was beneficial to generalize the situation of Hong Kong because the samples were not concentrated in a small geographical area. However, on average, only not more than two schools in the same district were chosen. In other words, the chosen schools could not represent their district and we could not use the data to do any comparison between districts.

General market orientation level of Hong Kong primary schools

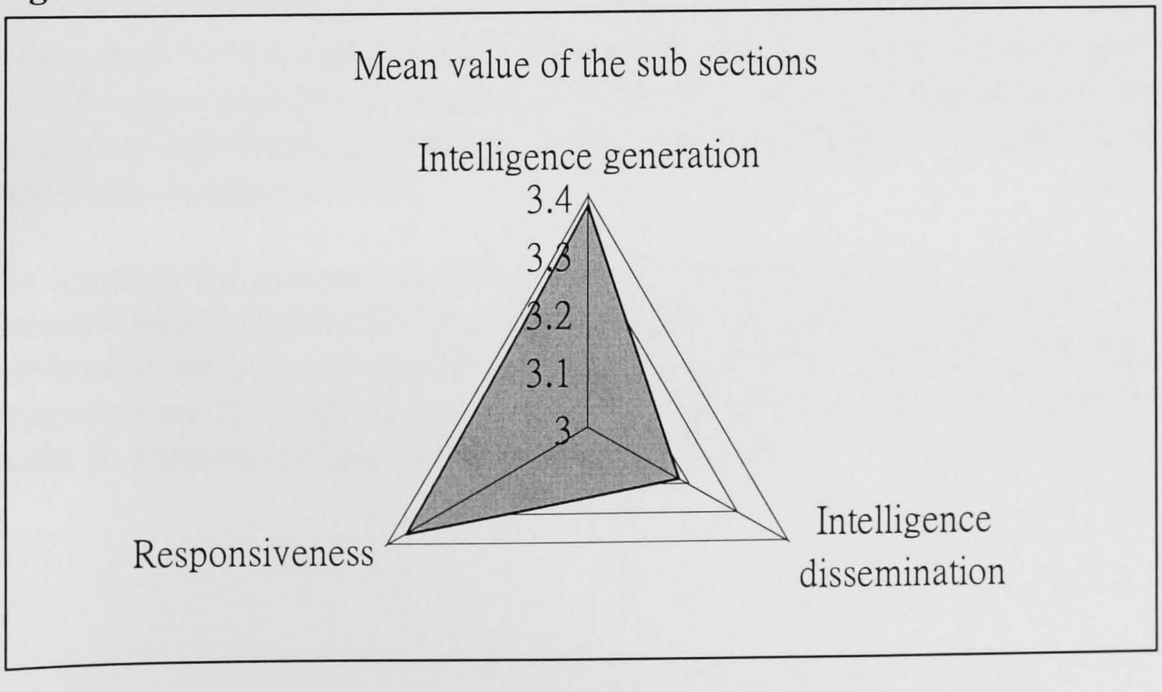
There were overall 538 respondents in this study. Every one of them was required to fill in the Ed MARKOR scale questionnaire with 30 questions. The Ed MARKOR scale is a 5-point scale. In order to ascertain the magnitude of the variables analyzed, and to compare them, the average value of each of them and the mean value of the subsections, intelligence generation: 3.44; intelligence dissemination: 3.14 and responsiveness: 3.37 are presented in Table 7 and Figure 1. The overall average was 3.32. Compared to the result of the authors of MARKOR's research (Kohli & Jaworski, 1993) on 230 out of 487 marketing executives, the overall average was 3.25, where intelligence generation was 3.37; intelligence dissemination was 3.45 and responsiveness was 2.92, the market orientation level in the sampled schools seemed to be a little bit higher than the companies studied by Kohli & Jaworski (1993). However, attention should be paid when interpreting the results because although Ed MARKOR was adopted from MARKOR, many items had been changed, added or deleted, which may have interfered with the resulting scores and therefore make comparison not so reliable.

Table 7 Resulting data of the Ed MARKOR survey in Hong Kong primary schools

Mean	Std. D.	
Intelligence Generation		
3.99	.99	1. Teachers meet with parents at least once a year (other than parents' day) to find out what services they want.
3.91	.96	2. Teachers interact directly with parents to find out how to serve their needs better.
3.57	.83	3. Most of our teachers are fast to detect changes in parents' needs and preferences.
3.86	.96	4. Our school management will survey parents at least once a year to collect their comments on our school.
3.42	1.05	5. Our school assigns a lot of resources to collect information from parents.
2.41	.86	6. Our school assigns a lot of resources to collect information from nearby schools.
3.67	.93	7. Our school collects information about parents by many informal means.
2.80	.81	8. Information on the schools in the same region is produced independently by several persons with different rankings.

3.36	.99	9. Our school is fast to detect changes in nearby schools.
Intelligence Dissemination		
2.81	.96	10. A lot of informal conversations between teachers concern the strategies of nearby schools.
2.91	1.11	11. We have interdepartmental meetings every three months (at least) to discuss the development of parental needs and opinions.
2.43	.91	12. We have interdepartmental meetings every three months (at least) to discuss the information and strategies of nearby schools
3.21	1.11	13. The principal in our school spends time discussing parents' future needs with teachers.
2.72	.99	14. Our school circulates documents (e.g. reports, newsletters) that provide information on our parents at least once a month.
3.81	.98	15. When something important happens to one or some of our parents, most of the teachers know about it within a short period.
3.32	1.04	16. Data concerning parental satisfaction is distributed to most of the teaching and non-teaching staff on a regular basis.
3.61	1.03	17. There is a lot of communication between the principal and teachers concerning the change in parental needs.
3.42	.92	18. When the principal or one of the teachers finds out something important about nearby schools, he or she is fast to alert others.
Responsiveness		
3.41	.97	19. It takes our school only a short period of time to decide how to respond to nearby schools' changes.
3.59	.98	20. We put much effort into providing new services in order to build school characteristics to make it different from other schools.
3.99	.84	21. Our school will not ignore changes in parents' service needs.
3.46	.98	22. We periodically review our policies and performances to ensure that they are in line with what parents want.
2.91	1.03	23. Our school plans are driven more by the response to parental needs than by the school's own needs.
2.63	.95	24. Our school plans are driven more by responses to the changes of nearby schools than by the school's own needs.
3.25	1.05	25. Several departments get together periodically to plan a response to changes taking place in parental needs.
2.93	.94	26. If a nearby school was to launch an intensive campaign targeted at our parents, we would implement a response immediately.
3.89	.86	27. Parents' complaints will not fall on deaf ears in this school.
2.91	.93	28. We are quick to respond to significant changes in nearby schools' actions.
3.76	1.03	29. When we find out that parents are unhappy with our policies and performances, we take corrective action immediately.
3.68	.88	30. When we find out that parents would like us to modify a policy, teachers involved make planned and combined efforts to do so.

Figure 1 Mean value of the subsections



Correlation of the items in the Ed MARKOR scale

Just like the MARKOR scale used by Jaworski & Kohli (1990), the items of Ed MARKOR scale were originally divided into three sub-sections: information formation (Question 1 to 9), information dissemination (Question 10 to 18) and responsiveness (Question 19 to 30). It was expected that items would correlate more highly with each other in the same sub-section than between sub-sections. A correlation test of the items in the Ed MARKOR scale was therefore carried out (see appendix 12).

To overcome the problem of multiple testing, the significant value was increased from the standard 0.05 to 0.001. In table 8, the number of significant correlations within a sub-section and the number of significant correlations with items in other sections were shown. To compare the number of significant correlations within a sub-section and with items in other sections, it would be better to observe them section by section.

In the first sub-section (information formation), there were 9 items. If the repeated correlations were deleted and the whole sub-sections were considered as a whole, there would be 18 out of 36 unique possible correlations (50%) within the first subsection. It was much higher than across other subsections which only got 56 out of 189 unique possible correlations (30%). By only considering the first sub-section, the number of significant correlations within the sub-section was much higher than with items in other sections.

In the second sub-section (information dissemination), there were also 9 items. If the repeated correlations were deleted and the whole sub-sections were considered as a whole, there would be 20 out of 36 unique possible correlations (56%) within the second subsection. It was higher than across other subsections which only got 79 out of 189 unique possible correlations (42%). By considering the second sub-section, the number of significant correlations within the sub-section was higher than with items in other sections.

Finally, in the third sub-section (responsiveness), there were 12 items. If the repeated correlations were deleted and the whole sub-sections were considered as a whole, there would be 24 out of 66 unique possible correlations (36%) within the third subsection. It was slightly higher than across other subsections which only got 73 out of 216 unique possible correlations (34%). By considering the third sub-section, the number of significant correlations within the sub-section was slightly higher than with items in other sections.

To conclude the discussions above, it was clear that the items within sub-section proportionally correlated higher than between sub-sections, although it was more obvious in the first and second sub-section. To further support this finding, factor analysis would be applied later to examine the factor structure of the Ed MARKOR scale, in order to compare with the MARKOR scale.

Table 8 Number of items which significantly correlated to each item within the Ed MARKOR scale

Sub-section of information formation (Question 1 to 9)

Number of significant ($p<0.001$) correlations WITHIN a subsection	Number of significant ($p<0.001$) correlations BETWEEN subsections
18 out of possible 36 (50%)	56 out of possible 189 (30%)

Sub-section of information dissemination (Question 10 to 18)

Number of significant ($p<0.001$) correlations WITHIN a subsection	Number of significant ($p<0.001$) correlations BETWEEN subsections
20 out of possible 36 (56%)	79 out of possible 189 (42%)

Sub-section of responsiveness (Question 19 to 30)

Number of significant ($p<0.001$) correlations WITHIN a subsection	Number of significant ($p<0.001$) correlations BETWEEN subsections
24 out of possible 66 (36%)	73 out of possible 216 (34%)

Validity Analyses

The validity of an instrument refers to the effectiveness with which the instrument measures what it was designed to measure. In this paper, two approaches to validity were examined: content validity and construct validity.

Content validity

Content validity assesses whether the substance of the items included in the instrument tap the construct that is being measured. It also indicates whether the scale items are representative of the content area. The items included in the revised scale were those validated by Jaworski & Kohli (1990). However, the wording of the items was modified to make them oriented toward education. Although content validity was not a major concern, it still remained an issue. To establish this aspect of validity, the measure was submitted to a panel consisting of 20 teachers. Panel members were asked to comment on the clarity of the items and their relevance and appropriateness to schools. Based on their comments, changes were made in the wordings of some items.

Construct validity

To determine the construct validity, the Ed MARKOR scale was tested for convergent validity. Evidence of convergent validity of the market orientation scale was examined through factor analysis (Applying factor analysis was also because of the investigation of factor structure of Ed MARKOR scale, and the comparison of it to the original MARKOR scale). Before going into the analysis of the present study data, some basic issues about factor analysis will be discussed here first.

Many of the concepts we use to describe human behaviour seem to consist of a number of different aspects. Factor analysis is a technique used to identify factors that statistically explain the variation among these aspects. Generally, the number of factors is considerably smaller than the number of measures. Basically, factor analysis tells us what variables group or goes together. Factor analysis boils down to a correlation matrix of a few major pieces so that the variables within the pieces are more highly correlated with each other than with variables in the other pieces. Besides, the reliability of the factors emerging from a factor analysis depends on the size of the sample, although there is no consensus on what the size should be. There has been agreement that there should be more participants than variables (Bryman & Cramer, 2001). Gorsuch (1983), for example, proposed an absolute minimum of five participants per variable and no fewer than 100 individuals per analysis. And the most widely used forms of factor analysis are principal components and principal-axis factoring. The difference between principal-components analysis and principal-axis factoring lies essentially in how they handle unique variance. In principal-components analysis, all the variance of a score or variable is analyzed. In other words, it is assumed that the test used to assess the variable is perfectly reliable and without error. In principal-axis factoring, only the variance which is common to or shared by the tests is analyzed.

The results of the factor analysis of the market orientation are shown in Table 9. A principal components analysis using a varimax rotation was conducted. Table 9 shows that 26 of the 30 items had acceptable loadings of .50 or greater. Twenty-one items had loadings ranging from .60 to .85. Ten factors explain 65.75 percent of the total variance. The analysis forced ten factors each with eigenvalues of greater than one.

The result above although satisfied the objective of doing factor analysis, to boil down the items into a correlation matrix of a few major pieces, it was still not so meaningful because there were too few items loading on each factor, ten factors out of thirty items. Besides, the above result also showed that Ed MARKOR scale did not have the same factor structure of MARKOR, where the items of MARKOR where converged into three subsections. Apart from using Principal Component Analysis, a variety of methods like Principal Axis Factoring and rotation like Quartimax, Equamax and Promax were used. They all gave identical results.

Table 9 Results of Factor Analysis of the Ed MARKOR Scale

Factor items	1	2	3	4	5	6	7	8	9	10
13. The principal in our school spends time discussing parents' future needs with teachers.	.686									
25. Several departments get together periodically to plan a response to changes taking place in parental needs.	.672									
16. Data concerning parental satisfaction is distributed to most of the teaching and non-teaching staff on a regular basis.	.656									
22. We periodically review our policies and performances to ensure that they are in line with what parents want.	.581									
28. We are quick to respond to significant changes in nearby schools' actions.		.710								
6. Our school assigns a lot of resources to collect information from nearby schools.		.643								
26. If a nearby school was to launch an intensive campaign targeted at our parents, we would implement a response immediately.		.621								
14. Our school circulates documents (e.g. reports, newsletters) that provide information on our parents at least once a month.		.522								
27. Parents' complaints will not fall on deaf ears in this school.		.406								
15. When something important happens to one or some of our parents, most of the teachers know about it within a short period.			.753							
20. We pay much effort to providing new services in order to build school characteristics to make it different from other schools.			.750							
29. When we find out that parents are unhappy with our policies and performance, we take corrective action immediately.			.677							
30. When we find out that parents would like us to modify a policy, teachers involved make planned and combined efforts to do so.			.519							
11. We have interdepartmental meetings every three months (at least) to discuss the development of parental needs and opinions.				.715						
12. We have interdepartmental meetings every three months (at least) to discuss the information and strategies of nearby schools.				.578						
10. A lot of informal conversations between teachers concern the strategies of nearby schools.				.532						
1. Teachers meet with parents at least once a year (other than parents' day) to find out what services they want.					.812					
2. Teachers interact directly with parents to find out how to serve their needs better.					.772					

4. Our school management will survey parents at least once a year to collect their comments on our school.					.382					
19. It takes our school only a short period of time to decide how to respond to nearby schools' changes.						.852				
18. When the principal or one of the teachers finds out something important about nearby schools, he or she is fast to alert others.						.762				
21. Our school will not ignore changes in parents' service needs.							.787			
17. There is a lot of communication between the principal and teachers concerning the change in parental needs.							.685			
8. Information on the schools in the same region is produced independently by several persons with different rankings.								.798		
9. Our school is fast to detect changes in nearby schools.								.454		
24. Our school plans are driven more by response to the changes of nearby schools than by the school's own needs.									.791	
23. Our school plans are driven more by the response to parental needs than by the school's own needs.									.699	
7. Our school collects information about parents by many informal means.									-.40	
3. Most of our teachers are fast to detect changes in parents' needs and preferences.										.709
5. Our school assigns a lot of resources to collect information from parents.										.619
Eigenvalue	4.80	2.72	2.37	1.93	1.75	1.44	1.36	1.20	1.12	1.05
Variance explained	15.9	9.05	7.89	6.43	5.81	4.80	4.54	4.00	3.73	3.50
Total variance explained = 65.752										

Reliability Analyses

Cronbach's alpha measures how well a set of items (or variables) measure a single unidimensional latent construct. It will generally increase when the correlations between the items increase. For this reason the coefficient is also called the internal consistency or the reliability of the test.When data has a multidimensional structure, Cronbach's alpha will usually be low. If the inter-item correlations are high, then there is evidence that the items are measuring the same underlying construct. This is really what is meant when someone says that they have "high" or "good" reliability. They are referring to how well their items measure a single unidimensional latent construct.

In this study, the alpha coefficient of all 30 questions in the newly established Ed MARKOR scale is .79 which surpassed the .70 threshold recommended by Nunnally & Bernstein (1994) for the test of scale reliability. That means the Ed MARKOR had a quite high internal consistency. In general, a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations. This evidence of reliability clearly indicates that the items included in the scales measure the degree of market orientation.

The construct validity and internal reliability of the Ed MARKOR scale was thus investigated and it was considered appropriate to model the findings of Ed MARKOR using regression analysis.

Regression modeling

After obtaining the general market orientation level of Hong Kong primary schools, and clearing up the reliability and validity issues, the next target of the present study was to discover variables that may affect schools' market orientation level. In the literature review section, some existing researches into the study of the different variables that may affect an organization's market orientation were discussed. The variables included organizational structure, systems of the organization, organizational culture, management behaviour and strategy. Stimulated by the literature and adhering to the reality of the Hong Kong primary school setting, as well as being bound by the constraints of data gathering from quantitative study, attention in the quantitative phase was specially paid to the following areas: structure and the stability of the schools, cultural factors within teachers, as well as personal factors of the teachers. In the following, several factors were examined by multiple linear regression analysis, using both enter and forward stepwise models, where market orientation score was the independent variable, and average teaching experience, longevity, size, religion and stability of the school were the dependent variables.

In this study, two kinds of dataset were obtained and analyzed. They were at individual and school level. In the analysis of individual level, the data of all 538 respondents were taken into account separately. On the other hand, at school level, the data of each respondent was added up and then an average was taken by referring to the school to which they belonged. The reason for using two kinds of level was to identify any significant difference between pure individual and individuals within the same school. In fact, in reality there were non-Christians in Christian schools and young non-experienced teachers working in a school with a history of more than 100 years. These were the variety of individuals working in the same workplace. On the other hand, organizational culture also played an important role to construct the behaviour and norms of its staff. Therefore, taking both individual or school level into account not only provides multi-faceted observation of the phenomena, but also explains how much organizational features shape their staff.

Exploration of the market orientation level in schools with different organizational structure

The results

Teacher level

The results of the multiple linear regression analysis identified two statistically significant variables (see table 10). They included the teaching experience of the teachers and operating years of the schools. They were negatively related to the level of market orientation. It also supported the fact that there was no statistically significant relationship between the number of teachers in schools and their level of market orientation.

The model which was used to compute the multiple regression equation produced a coefficient of determination of R-squared = .141. The adjusted the coefficient of determination, which adjusted the model for degree of freedom, indicating the level of prediction from the sample that can be generalized to the population. The adjusted coefficient of determination score for this model was Adj. R-squared = .136. Neither the coefficient of determination value nor the adjusted coefficient of determination value was significant. The F-score provided the level of significance for the multiple regression model. The F-score for the model which included all the predictor values was 29.249 which was significant ($p<.01$).

Two predictor variables in the multiple regression equation significantly contributed to the prediction of the level of market orientation. However, the variables accounted for only a relatively small percentage – 14.1% of the variance. The proportion of the variance accounted for by the predictor variables holds for the population.

Table 10 Multiple regression of market orientation (Year of the school operate, Number of teachers in schools & Average teaching experience of the teachers in schools) at the individual level

n = 538

Independent variables	B	SE	T-score	P
Year of the school operate	-.0025	.001	-4.844	<.01
Number of teachers in schools	.0032	.002	1.916	=.056>.05
Teaching experience of the teachers in schools	-.0047	.001	-5.179	<.01

At school level

The results of the multiple linear regression analysis also identified two statistically significant variables (see table 11). The same as for the result found at the individual level, they were the teaching experience of the teachers and operating years of the schools. They were negatively related to the level of market orientation. It also supported the fact that there was no statistically significant relationship between the number of teachers in schools and their level of market orientation.

The model which was used to compute the multiple regression equation produced a coefficient of determination of R-squared = .564. This coefficient of determination was significant ($p<.01$). The adjusted coefficient of determination, which adjusted the model for degree of freedom, indicated the level of prediction from the sample that can be generalized to the population. The adjusted coefficient of determination score for this model was Adj. R-squared = .531, which was significant ($p<.01$). The F-score provided the level of significance for the multiple regression model. The F-score for the model which included all the predictor values was 17.246 which was significant ($p<.01$).

Two predictor variables in the multiple regression equation significantly contributed to the prediction of level of market orientation. Also, the variables accounted for a relatively large percentage – 53.1% of the variance. The proportion of the variance accounted for by the predictor variables also holds for the population.

Table 11 Multiple regression of market orientation (Year of the school operate, Number of teachers in schools & Average teaching experience of the teachers in schools) at school level n = 43

Independent variables	B	SE	T-score	P
Year of the school operate	-.0025	.001	-3.525	<.01
Number of teachers in schools	.0037	.002	1.688	=.099>.05
Average teaching experience of the teachers in schools	-.0050	.001	-4.159	<.01

Exploration of the relationships between the level of market orientation with the religious and enrolment status of the schools

The results

Religion of the schools and the level of market orientation

The comparison of the respondents' level of market orientation coming from Christian and non-Christian schools is shown in table 12. It appears that the religion of schools does affect their market orientation level ($t = -4.174$, $df = 498$, $p<.001$), where the level of market orientation of teachers coming from non-Christian schools was higher than those coming from Christian schools.

Table 12 Comparison of the respondents' level of market orientation coming from Christian and non-Christian schools (individual level)

Type of school that respondents belong to	Number of respondents	Mean	Standard Deviation
Christian	299	3.279	.363
Non-Christian	239	3.411	.329

The comparison of schools' level of market orientation between Christian and non-Christian schools is shown in table 13. Like the analysis at individual level, the results also supported the fact that the religion of schools does affect their market orientation level ($t = 2.642$, $df = 39$, $p<.05$), where the level of market orientation of non-Christian schools was higher than that of Christian schools.

Table 13 Comparison of schools' level of market orientation between Christian and non- Christian schools (school level)

Type of school	Number of respondents	Mean	Standard Deviation
Christian	18	3.431	.167
Non-Christian	26	3.282	.185

Enrolment rate of the schools and their level of market orientation

The comparison of respondents' level of market orientation coming from schools with full and partial enrolment is shown in table 14. Although the results supported the fact that there was a statistically significant difference between high and low levels of enrolment ($t = 2.474$, $df = 536$, $p<.05$), due to there only being a .078 difference between their means, it could be said that there was no significant difference between them practically.

Table 14 Comparison of respondents' level of market orientation coming from high and low enrolment rate schools (individual level)

Type of school that respondents belong to	Number of respondents	Mean	Standard Deviation
High enrolment rate	315	3.353	.352
Low enrolment rate	223	3.276	.367

The comparison of schools' level of market orientation between full and partial enrolment schools is shown in table 15. Different from what appeared at the individual level, the results did not support the fact that there was a statistically significant difference between schools with full and partial enrolment ($t = 1.719$ df $=42$, $p=.93 > .05$).

Table 15 Comparison of schools' level of market orientation between full and partial / zero enrolment (school level)

Type of school	Number of respondents	Mean	Standard Deviation
Full enrolment	27	3.368	.189
Partial / zero enrolment	17	3.269	.183

The findings above showed that there was no big difference between school and individual levels on the issue of religion. The difference between Christian and non-religious schools was significant both at school and individual level. However, when considering the impact of enrolment rate on the level of market orientation, different results were obtained for individual and school level. In the individual level analysis, the difference between teachers from schools with full or partial enrolment was significant. But, at school level, the difference was not significant. However, no matter whether the difference was significant or not, the difference between schools with full and partial enrolment was not practical. Put another way, there were only very small differences (.07 and .1) between the mean score obtained from schools with full and partial enrolment, and this could only prove that schools with full enrolment had a little bit higher level of market orientation which in fact was not so remarkable in reality. The comparison is presented in table 16.

Table 16 Comparison between the results from individual and school level

Level	Factor 1	Factor 2	Mean Value	Significance	Null hypothesis
Individual	Non-religion (N)	Christianity (C)	N=3.41 C=3.28	p<.01	Rejected
School	Non-religion (N)	Christianity (C)	N=3.43 C=3.28	p<.05	Rejected
Individual	Full enrolment (F)	Half /zero enrolment (H)	F=3.35 H=3.28	p=.014, <.05	Rejected
School	Full enrolment (F)	Half /zero enrolment (H)	F=3.37 H=3.27	p=.093, >.05	Cannot be rejected

Summary

This chapter described the data analysis procedures and results. The descriptive statistics of the final data and response rate were reported. Scale validation processes for the multiple item measures were also reported. Factor analyses and reliability analyses were conducted for the multiple-item scales. The testing of some market orientation factors followed the scale validation and multiple regression and t-tests were extensively used. A summary of the results are listed below:

- The data showed that the longer teachers had been teaching, the less attention and response there was to the information coming from parents and nearby schools.
- The more years for which a school had operated, the less attention and response to the information coming from parents and nearby schools.
- There was no significant difference in the level of market orientation between schools with more or less number of teachers.
- The religions of schools do influence the market orientation level where the level of market orientation of teachers coming from non-Christian schools will be higher than those coming from Christian schools.
- There was statistically significant difference between high and low levels of enrolment in school level but not individual level analysis. However, due to there being only a .078 difference between their means at individual level, it could be said that there was no significant difference between them practically.

*Except the difference in t-test in relation to enrolment rate of the schools, the results were the same, no matter whether analyzing the data at school or individual level.

CHAPTER SIX

DISCUSSION OF THE QUANTITATIVE STUDY

This chapter comprises four main elements. The first section is about the factor structure and internal consistency of applying the Ed MARKOR scale in Hong Kong's primary schools. The second is the survey statistics of the study by the Ed MARKOR scale. The third is the interpretation and discussion of the results from the statistical tests of some assumed influential factors. Finally, directions for future research, especially for the phase II qualitative study are presented.

Factor structure and internal consistency of applying the Ed MARKOR scale in Hong Kong's primary schools

Different factor structure between education and non-education sector by using the MARKOR scale

With the aim of achieving a reliable and valid measurement of market orientation in primary schools, the MARKOR scale was modified to the Ed MARKOR scale (Kohli *et al.* 1993) by the researcher himself. It comprises a comprehensive set of questions that help to examine and understand the market orientation of schools. It assesses the degree to which a school engages in basic market oriented practices – the generation of market information; the dissemination of the information within the organization, and the design and implementation of the response.

To test that Ed MARKOR scale were also divided into three sub-sections, like the MARKOR scale used by Jaworski & Kohli (1990), two statistical procedures were applied. Firstly, correlation test were executed and the results showed that the items within sub-section correlate slightly higher than between sub-sections. However, just a slight difference between the correlation within sub-section and across sub-sections, could not guaranteed the factor structure of Ed MARKOR scale was same as MARKOR scale. Therefore, after that, factor analysis was used. At the end of the application of factor analyses, the Ed MARKOR scale produced results that were somewhat different from those previously obtained (Jaworski & Kohli, 1993). The statistical analysis of factor analysis produced 10 factors with eigenvalues over one, not three, the number of factors in the original MARKOR scale. To this end, we could say that the factor structure of Ed MARKOR scale was not the same of MARKOR scale.

Some may argue that the cultural difference may be the cause of this discrepancy. Although the original MARKOR scale was developed in a western country – the United States – after its establishment, subsequent studies in many different contexts around the world had corroborated its reliability and validity (For example: United Kingdom: Singh & Ranchhod (2004); Germany & United States: Homburg *et al.*'s (2004); China: Kaynak & Kara (2004); Greek: Avlonitis & Gounaris (1997); Hong Kong: Lai (2003); Malta & United Kingdom: Pitt *et al.* (1996); Spain: Martín-Consuegra & Esteban (2007); Australia: Caruana (1997) and New Zealand: Caruana (1998). Therefore, cultural differences may not be the main cause of this inconsistency.

It is most probably due to the different working environment, custom, habits and beliefs between organizations in educational and non-educational sectors. The reasons will be seen in the coming sections. It is noticed that no single study has proved that the factor structure of primary schools is the same as in other sectors by using the MARKOR scale to measure their market orientation because although the MARKOR scale had been applied to test many different kinds of organizations' market orientation (for example, Manufacturing: Singh & Ranchhod (2004); Across countries: Pelham & Wilson (1996); Service: Egeren & O'Connor (1998); Non-profit: Balabanis, Stables & Phillips (1997) and Public: Cervera, Mollá, & Sánchez (2001)), it has seldom been used in the educational sector. Some may argue that there have been few studies on market orientation in the field of education, but at least Caruana (1998) used and validated MARKOR in the educational sector. However, Caruana did not apply any factor analysis on his modified 25-item market orientation scale. Therefore, we cannot affirm whether the sampling data of Caruana provided the same factor structure of Jaworski & Kohli, (1993). He only checked its internal consistency by means of Cronbach's alpha and obtained an alpha coefficient of 0.897. In this present study, the Ed MARKOR scale also had a very high reliability coefficient (Cronbach's alpha) of nearly 0.79. This was evidence to show that the items in the Ed MARKOR scale were measuring the same underlying construct. When data has a multidimensional structure, Cronbach's alpha will usually be low. As now the inter-item correlations are high, this is evidence that the items are measuring the same underlying construct. It also means that if a school scores high marks by using the Ed MARKOR, it could be said that its market orientation is high too.

The unique factor structure of schools on market orientation

There are at least five possible reasons to explain the differences of factor structures between educational and non-educational sectors. First, in reality, principals and teachers may see other nearby schools not as competitors but as fraternal organizations working in the same general sphere. In the data of the sampled schools, schools were much more parental than competitor oriented. Since the questions of Ed MARKOR about the management of parental and competitors' information were scattered into different categories including the generation of market information, the dissemination of the information and the implementation of the response, even if schools had high motivation in parental orientation they may perform badly in competitor orientation. Apart from this, the parental-related questions all obtained exceptionally high scores (except for questions 11, 14 and 23 which scored relatively low marks, 2.91, 2.72 and 2.91; all other 16 questions scored quite similar high marks which were all over 3.21). In other words, there was not a lot of discrimination between schools in responding to the questions of parental-related questions. It therefore cannot create a factor structure because it needs diversity in the population to get the correlations to operate.

Second, there were many modifications to the question items. By means of several pre-tests, new items were added (for example, in the original MARKOR scale, question 3 was "in this business unit, we do a lot of in-house market research"; it was then divided into two questions, question 5 and 6, "Our school assigns a lot of resources to collect information from parents" and "Our school assigns a lot of resources to collect information from nearby schools" respectively because teachers and principals in the stage of pre-tests found the original version hard to be understood. Some items were deleted (for example, question 11 "A lot of hall talk in this business unit concerns our competitors' tactics or strategies in the original MARKOR scale". Some subjects were changed (for example, in the original MARKOR scale, question 3 concerns the work of marketing personnel: "Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments". In the Ed MARKOR scale, marketing personnel was changed to the principal: "The principal in our school spends time discussing parents' future needs with teachers". The main reason for the change is that there are in general no marketing personnel in aided primary schools in Hong Kong. Some items were modified a lot because in the field of education, the described situation seldom appears. For example, in the original MARKOR scale, question 20 was "principles of market segmentation drive new product development efforts in this business unit". Since most schools claim themselves to provide "education for all", especially the public schools, they would not accept market segmentation in the school setting. As a result the question was modified. It appeared in the Ed MARKOR scale as "We put much effort into providing new services in order to build school characteristics to make it different from other schools". Furthermore, since mostly, there is no product development in schools, in question 22 of the MARKOR scale "We periodically review our product development efforts to ensure that they are in line with what customers want", "product development" was changed to the "policies" and "performance" in the Ed MARKOR scale. In addition, since there are seldom technological advances in schools, Question 23 of the MARKOR scale, "our business plans are driven more by technological advances than by market research" was expanded into two questions, 23 and 24 in the Ed MARKOR scale and the focus was changed to parents' needs and changes of nearby schools: "Our school plans are driven more by the response to parental needs than by the school's own needs" and "Our school plans are driven more by response to the changes of nearby schools than by the school's own needs".

In fact the modified question items may reflect the real situation in schools and make it easier for teachers and principals to respond. However, these modifications may be the most crucial factor why the Ed MARKOR scale could not produce the same results as the MARKOR scale. Further modification of the Ed MARKOR scale by means of changing the meaning and wording as well as further theoretical and empirical work may be required. Future research could start by reassessing the present conceptualization of market orientation for application in an educational setting, as well as the resulting item pool.

Lastly, the Education Bureau in Hong Kong has established some new policies which focus on the generation of parental intelligence. For example, the government developed a set of Stakeholder Survey questionnaires, which has been subjected to validity tests, to help schools collect the views of parents (see Appendix 13). Although the government suggests that schools can decide on the frequency of administering the survey according to their own needs, most aided schools survey their parents at least once a year, no matter the level of schools' market orientation. That may be the reason for the exceptionally high scoring of some questions, for example, question 4 (Our school management will survey parents at least once a year to collect their comments on our school), which was 3.86. The hidden factors created by the general policy change of the government may force schools to act more actively in some market orientation activities, depending on what policies have been made, but do nothing in other activities.

Analysis of the survey statistics

The different emphasis on the management of parental and nearby schools' Information

From the data, it was very obvious that the overall intelligence generation, dissemination and responsiveness of parents were higher than nearby schools. For intelligence generation, the scores of questions concerning parents were much higher than from the nearby schools. The scores of questions related to parents were from 3.42 to 3.99. Question 1 was 3.99 (Teachers meet with parents at least once a year (other than parents' day) to find out what services they want); question 2 (Teachers interact directly with parents to find out how to serve their needs better) was 3.91; question 3 (Most of our teachers are fast to detect changes in parents' needs and preferences) was 3.57; question 4 (Our school management will survey parents at least once a year to collect their comments on our school) was 3.86; question 5 (Our school assigns a lot of resources to collect information from parents) was 3.42 and question 7 (Our school collects information about parents by many informal means was 3.67). However, except the score of question 9 (Our school is fast to detect changes in nearby schools), which was 3.36, the scores of other questions related to nearby schools were relatively low. Question 6 (Our school assigns a lot of resources to collect information from nearby schools) was 2.41; question 8 (Information on the schools in the same region is produced independently by several persons with different rankings) was 2.80.

Owing to the design of Ed MARKOR, there were only three questions about nearby schools in the section of intelligence dissemination and six of the other questions were related to parents. There were extremes in the responses of the nearby school-related questions. Question 12 (We have interdepartmental meetings every three months (at least) to discuss the information and strategies of nearby schools) scored very low marks (2.43) but question 18 (When the principal or one of the teachers finds out something important about nearby schools, he or she is fast to alert others) scored a very high mark (3.42). The above discrepancy is not hard to understand. Based upon the observations of behaviour in Hong Kong primary schools, one of the possible explanations is that principals and teachers tell colleagues if they find the information important. But, they do not do it systematically.

On the other hand, except the scores of the question related to parents, 11 (We have interdepartmental meetings every three months (at least) to discuss the development of parental needs and opinions) and question 14 (Our school circulates documents (e.g. reports and newsletters) that provide information on our parents at least once a month) were relatively lower, 2.91 and 2.72 respectively, another four questions, 13 (The principal in our school spends time discussing parents' future needs with teachers), question 15 (When something important happens to one or some of our parents, most of the teachers know about it within a short period), question 16 (Data concerning parental satisfaction is distributed to most of the teaching and non-teaching staff on a regular basis) and 17 (There is a lot of communication between the principal and teachers concerning the change in parental needs) continually scored high marks. The above results showed that schools had their specific style to disseminate parental information. It could be seen that systematic dissemination of parental information is still not common in schools. But they would like to communicate and discuss the information about parents through informal channels and talk, rather than through systematic and regular meetings and documentation.

To summarize, in terms of intelligence generation and dissemination, it appears that they were generally more highly active in the management of parental information than nearby schools.

In the section of responsiveness, again, the overall scores related to parental information were higher than nearby schools. Except question 23 (Our school plans are driven more by the response to parental needs than by the school's own needs) about the planning of school scored a little bit lower, 2.91; all other six parental-related questions scored from 3.25 to 3.99. They were much higher than the nearby school-related questions which scored 2.63 to 2.91. Two distinguishing cases were question 19 (It takes our school only a short period of time to decide how to respond to nearby schools' changes) and 20 (We put much effort into providing new services in order to build school characteristics to make it different from other schools) which scored exceptionally high marks of 3.41 and 3.59 respectively.

To conclude the above, firstly, the school samples in this study were found to be paying more attention and spending more resources on collecting and dealing with parental information than nearby schools. It could be seen by the comparison of question 5 (Our school assigns a lot of resources to collect information from parents) and 6 (Our school assigns a lot of resources to collect information from nearby schools). They were 3.42 and 2.41 respectively. It was further illustrated by the comparison of the similar questions, whether schools' plans were driven by parental needs, changes of nearby schools or schools' own needs. Question 23 (Our school plans are driven more by the response to parental needs than by the school's own needs) showed a higher score (2.91) than question 24 (Our school plans are driven more by response to the changes of nearby schools than by the school's own needs) which was 2.63. That meant although school plans were not really affected a lot by parents' needs, the influence of nearby schools was much weaker. Secondly, due to an overemphasis on parents than on nearby schools, schools may have many activities in relation to the management of the information of parents but not on nearby schools. Especially, the factors affecting the responses may mainly be divided into whether the questions concerned parents or nearby schools. This is not the same as the original MARKOR scale that divided them into three categories (intelligence generation, dissemination and responsiveness). These characteristics may alter the factor structure and make it totally different from the factor structure of other business sectors because in many sectors of business, customers and competitors are seen with more or less the same weight. In other words, not like schools, the effort to collect information from competitors and customers should not be so different. This is one of the reasons that in the process of testing convergent validity, the Ed MARKOR scale could not produce the same performance as the original MARKOR scale by using factor analysis. Thirdly, even the overall score of Ed MARKOR scale was quite high in this school sample, but many questions (6, 11, 12 and 14) showed us that they seldom do such market orientation activities systematically. One proposed reason may be the school size or other factors such that they cannot afford to use their resources and energy for market orientation activities more systematically. Another possible reason may be the communication effectiveness in schools. Those may be the hidden factors which made the factor structure different from the MARKOR scale. These were discovered in the Phase II qualitative study.

Intelligence generation, dissemination and responsiveness of nearby schools

No matter how a school responds to nearby schools, the generation and dissemination of nearby schools' information are very low as shown by the following findings. Question 6 (Our school assigns a lot of resources to collect information from nearby schools) scored the lowest mark of 2.41 and question 12 (We have interdepartmental meetings every three months (at least) to discuss the information and strategies of nearby schools), scored the second lowest – 2.43 – as well as relatively low marks (2.81) for question 10 (A lot of informal conversations between teachers concern the strategies of nearby schools).

On the other hand, the score for question 20 (We put much effort into providing new services in order to build school characteristics to make it different from other schools) was 3.59. It showed us that schools claimed that they tried their best to be difference compared to nearby schools. Paradoxically, their school plans are seldom driven by the changes made by nearby schools. Question 24 (Our school plans are driven more by response to the changes of nearby schools than by the school's own needs) scored only 2.63. In fact, before schools can make themselves different from their nearby schools, they must first of all know what is happening in other schools. However, the result showed that they did not actively gather the information from the nearby schools formally or informally. And they did not disseminate or discuss the information systematically through interdepartmental meetings. Of course, information about nearby schools is normally not easy to detect. However, from time to time schools will send their brochures to other schools, so they could collect and analyze them if they wanted to. However, do they? What enhances or prohibits this kind of behaviour were the issues that needed to be discovered in the Phase II qualitative study.

Surprisingly, although the above findings showed that they do not put a lot of resources into gathering information from nearby schools, they still claimed themselves to be fast to detect changes in nearby schools and respond to them. The score of question 9 (Our school is fast to detect changes in nearby schools) was 3.36 and the score of 19 (It takes our school only a short period of time to decide how to respond to nearby schools' changes) was 3.41. They were relatively high. Although the high score (3.42) of Question 18 (When the principal or one of the teachers finds out something important about nearby schools, he or she is fast to alert others) could explain part of this phenomenon, it could not guarantee that they would not miss some information that was really useful and important. Indeed, most responding schools manage nearby schools' information unsystematically.

Intelligence generation, dissemination and responsiveness of parents

The results for question 21 (Our school will not ignore changes in parents' service needs) and 27 (Parents' complaints will not fall on deaf ears in this school) showed that schools do take parents' needs and complaints into account. The scores were 3.99 and 3.89 respectively. However, teachers normally claim that they care about parents but in reality perform in another way. Although the scores were significantly high, they may not reflect the real situation. Again socially desirable responding may hide the reality. In addition, this question seemed to be not clear enough to show the intensity of the actions to respond to parental needs, changes and complaints. It would be better to design a more precise question to replace it in future research.

Variables affecting school market orientation level

Average teaching experience of the teachers in school and the operating years of the school

The data of the sampled schools showed that the school had more experienced teachers (with longer teaching experience), with less attention and response to the information coming from parents and nearby schools. One of the reasons to explain this phenomenon is that the experienced teachers were just far more knowledgeable from experience and therefore did not need to engage in the kinds of behaviour that were described in Ed MARKOR. It is believed that this result is interesting since it indicated that, in order to be market oriented, schools should be especially aware of the negative effect from such teachers with longer teaching careers. It is important to figure out methods to improve this situation. This led to a more detailed investigation in the second part of the research. The focus was put on how some "old" schools or very experienced teachers are still ready to be changed and have a comparatively higher level of market orientation.

School size

Although there was no significant difference in the level of market orientation between schools with more or less numbers of teachers, it didn't absolutely mean that the number of teachers or size of schools should be ignored when considering market orientation in schools because theoretically more staff members on the one hand can provide sufficient manpower to do the marketing job; however, on the other hand, it hinders the dissemination of market information as well. Therefore, in the later qualitative study, how to fix the problem of information dissemination was examined.

Religious beliefs

From the result of the sample schools, the religion of schools was one of the determinants of market orientation development. The level of market orientation of teachers coming from non-Christian schools was higher than for those coming from Christian schools. In relation to the religious beliefs of the schools, it was confirmed that Christian schools had less market orientation than non-Christian schools. However, there were still some exceptions. Some Christian schools displayed exceptionally high levels of market orientation. This information can provide some very useful insights for all other schools.

Enrolment rate

There was a statistically significant difference between high and low levels of enrolment in school level but not in the individual level analysis. However, due to only a .078 difference between their means at individual level, it could be said that there was no significant difference between them statistically. In fact, enrolment rate was an index of the stability of the school. Theoretically, schools with insufficient enrolment would be eager to fight for more students. Therefore, their market orientation level should be relatively high. The reason for a lack of this effect is still unknown and further investigation is needed to explain it.

Research questions for the qualitative phase

No one research paradigm can answer all the questions which arise in educational research. To make a decision, we should first of all consider the objectives and nature of the study. This research attempted to uncover the nature of people's perceptions, opinions and responses to a phenomenon in a very complex setting. In summary, the study design was driven by the research questions, "what factors affect the development of market orientation?" The quantitative study raised issues about market orientation being quite different between business and school settings; therefore, principals' and teachers' perception of it needed to be further explored.

To unveil the various aspects of the market orientation development in schools, the following research questions needed to be addressed.

Firstly, what did teachers and principals' think of the term 'market orientation'?

The answer to this is crucial because personal beliefs will seriously affect their behaviour.

Secondly, how did the factors found in the quantitative study affect the development of school market orientation? That is, how did the average teaching experience, longevity, size, religion and stability of the school affect the level of market orientation in schools?

Lastly, apart from the factors discovered in the quantitative phase, are there any other barriers to or drivers for market orientation development?

A qualitative study at this stage also served the function of following up the findings in the previous quantitative research. The research questions stimulated by the previous quantitative study included: why did schools regard parent orientation as more important than competitor orientation? Did teachers consider nearby schools as competitors or not? In what areas or under which circumstances will school pay more attention to nearby schools? On the other hand, why were school plans driven more by the school's own needs than the response to parental needs and to the changes of nearby schools? Is it mainly due to the educational beliefs or any other systematic barriers? Related to the systematic factor, the results of the sampled schools showed that schools had their specific style to disseminate parental information: they liked to communicate and discuss the information about parents through informal channels, rather than through systematic and regular meetings and documentation. The question was why didn't they do it more systematically?

To answer the questions above, a qualitative study was designed and the methodological issues related to the study will be discussed in the following section.

CHAPTER SEVEN

METHODOLOGY OF THE QUALITATIVE STUDY

This section of the chapter reports on the research design and methods employed in the qualitative portion of the study. This section is divided into two parts. First, a brief discussion of the rationale for the qualitative study is presented. The second portion provides a description of the research participant selection process, the data collection strategy and procedures, and the data analysis techniques. To conclude the chapter, some potential problems, ethical issues and solutions applied to cope with them are also exhibited in the last portion of this chapter.

Rationale for the use of Qualitative research

The method employed in this phase of study was based on the qualitative research paradigm (Marshall & Rossman, 1995). The rationale to use qualitative research during the second phase is supported by several scholars. Dubin (1969) argued that descriptive research is critical in any field of inquiry, and Yin (1994) proposed that interviews, observations and examination of key documents, which were also used in this study, help the researcher understand complex social phenomena and the characteristics of real-life events.

Qualitative approaches also have the advantages of flexibility, in-depth analysis and the potential to observe a variety of aspects of a social situation (Babbie, 1986). A qualitative researcher conducting a face-to-face interview could quickly adjust the interview schedule if the interviewee's responses suggest the need for additional probes or lines of inquiry in future interviews. Moreover, by developing and using questions on the spot, a qualitative researcher could gain a more in-depth understanding of the respondent's beliefs, attitudes and situation. During the course of an interview or observation, a researcher is able to note changes in bodily expression, mood, voice intonation and environmental factors that might influence the interviewee's responses. Such observational data could be of particular value when a respondent's body language runs counter to the verbal response given to an interview question.

Justification for the Qualitative nature of the research

Methodological theory indicated that the questions identified in the preceding pages needed to be explored through qualitative research methods, prior to the future empirical testing of developed constructs (an approach used successfully by Narver

& Slater (1990) and Kohli & Jaworski (1990) as the first phase of the development of market orientation constructs). Thus, it was deemed that semi-structured interviews would prove the most suitable mechanism for data collection.

Data collection procedure

Interviews were the main method used for data collection in this qualitative study. Because of time and resource limits, only a small number of schools and teachers were invited to the interviews.

Selection of schools

Purposeful sampling, especially, the strategy called "extreme case" approach was used. Patton (1990) stated that an extreme case sampling strategy focuses on cases "that are rich in information because they are unusual or special in some way." A total of four schools were selected from the list of schools and separated into two groups. The 44 responding schools were divided into two categories: high and low level of market orientation. Those schools were identified from the result in the quantitative stage. Two schools from each of the categories were selected. The criteria for selecting those schools are listed in table 16 with reference to the findings in the Phase I quantitative study (see the summary in Appendix 14). Four schools were chosen because they could generate a broad enough profile, given the variation in context. Eisenhardt (1989) argues that the use of too few cases reduces validity and reliability while Dyer & Wilkins (1991) contend that too many cases confuse the researcher. Two schools from each level were selected rather than just one because the findings of only one sample could simply be about that school, rather than be related to market orientation.

Schools with different levels of market orientation were selected to provide contrast and further understanding of the factors affecting the development of market orientation. The reasons for including schools with low market orientation were because the researcher wanted to: 1) compare the findings between schools with high and low market orientation, so that the positive and negative factors for the development of market orientation could be figured out; 2) see any contradictions, for example, any factors favouring the development of market orientation but also present in schools with low levels of market orientation; and 3) get more insights about which factors are more dominant than others.

Table 17 Reasons for Phase 2 sampling

School	Level of market orientation	Reasons for the selection
A	High	Large Christian school & young school (-5 years) and most teachers (+70%) have teaching experience of less than 5 years
B	High	Small, non-Christian, parent-favourite & with long history (40 years +) and percentage of teachers with over 10 years working experience is over 60%
C	Low	Large, non-Christian & young school (-5 years) and most teachers (+70%) have teaching experience of less than 5 years
D	Low	Small Christian school with long history (40 years +) and percentage of teachers with over 10 years working experience is over 60%, will be closed due to insufficient enrolment in the coming two to three years

The schools that matched the criteria in table 17 were asked to participate in the study by direct contact via telephone by the researcher. The researcher explained the details to the principals. The researcher reminded the principals of the survey recently completed by the teachers and told them that they had been selected to participate in the interviews based on a certain profile that emerged from the survey results. The researcher explained the format of the interviews to the principals. After getting the approval from the principals, individual teachers in the selected schools were invited to participate.

Selection of individual participants

In each school, a name list of teaching staff was supplied by the school principal. In the name list, sex, religious belief, working experience and duties of the teachers were shown. Three teachers were chosen from the list in each school. The selection procedure should guarantee that each type of participant was approximately the same in number to avoid bias. Other than teachers, the principals were also invited to participate in the interviews.

Procedure

A semi-structured, in-depth interview method (Sashkin & Morris, 1984) was used because interviewing could allow a researcher to investigate and prompt things that could not be observed by only document analysis. They included an interviewee's thoughts, values, prejudices, perceptions, views, feelings and perspectives. The in-depth nature of an intensive interview fostered the eliciting of each participant's interpretation of his or her experience (Seidman, 1998).

The interviews were planned and prepared, but what was planned was half-scripted or quarter-scripted. The questions were only partially prepared in advance and were therefore largely improvised by the researcher.

Analysis took place after the first interview; this analysis was then used to shape the next interview, and so on. As the interviews proceeded, the questions became deeper and more specific. Each participant participated only once in 60 minute interviews. Each interview was recorded by the researcher and transcribed. One more interview was done if some clarifications about the first interview were needed.

During the interviews, the researcher followed the interview guide (Appendix 15), but explored whatever areas of interest the participants mentioned and "exerted minimal topic control". Swanson (1986) advised using probes to encourage participants to talk and take notes of the verbal and non-verbal cues they gave during their interview. He said that it was imperative that the researcher practised active listening and refrained from imposing his or her views, talking about his or her own anecdotes, interrupting unnecessarily or jumping to conclusions, in order to draw authentic and detailed responses from the participants.

Variables suggested by the previous literature and Phase I quantitative study, e.g. organization structure, system, strategy and culture; management behaviour and leadership style (see table 4) helped to create the very first framework of the interview questions about drivers and barriers in market orientation development in schools. However, a "purposeful conversation" strategy suggested by Patton (1990) was applied. This method suggested that the content and evolution of the interview should not be fixed strictly, so that there might be some differences between the interviews. As a result, more specific and deeper findings could be obtained by interviewees with different background or working environment. Open ended questions were used to gain the respondents' subjective conceptualizations of market orientation in school. Of particular importance were their personal experiences of their involvement in the market orientation activities and feelings about it. The researcher explained the concept "market orientation" after the expression of the interviewees' own ideas for checking their personal interpretation and feelings about marketing terms. Clarification would be necessary to avoid misconceptions of the definition of market orientation which may mislead the later interviews.

Interview questions and responses were typically recorded, with the participants' consent (see Appendix 16), and then transcribed before analysis was begun. Copies of the transcripts were sent back to the participants for checking so that they could make corrections or supplementary remarks at the subsequent interviews if they so wished. Due to the large amount of data that could be generated in qualitative research, a data reduction process must be used to aid analysis. This procedure includes organizing the data, and identifying emerging themes, categories and patterns.

Most of the interviews were conducted in Chinese and then translated into English by the researcher because most of the principals and teachers in Hong Kong speak Cantonese and found that using their mother tongue would benefit communications.

Data analysis

The constant comparative method

One of the defining characteristics of qualitative research is an inductive approach to data analysis. The constant comparative method is one way of conducting inductive analysis of qualitative data (Glaser & Strauss, 1967; Lincoln & Guba, 1985). It combines inductive category coding with a simultaneous comparison of all units of meaning obtained. As each new unit of meaning is selected for analysis, it is compared to all other units of meaning and subsequently grouped (categories and coded) with similar units of meanings. If there are no similar units of meaning, a new category is formed. In this process, there is room for continuous refinement; initial categories can be changed, merged, or omitted; new categories are generated; and new relationships can be discovered (Goertz & LeCompte, 1981). In other words, the data analysis process began after finishing the first interview, and continued by analyzing the data along with the data collecting process. Data analysis was concurrent with data collection and was more or less completed by the time the data was gathered.

The constant comparative method consists of four steps. They are inductive category coding, refinement of categories, exploration of relationships and patterns across categories, as well as integration of data and writing up the research.

To put the above more practically, it could be said that the initial step in qualitative analysis is to listen to interview records, and read interview transcripts and documents that are to be analyzed (Emerson *et al.*, 1995). During this reading and listening, notes and memos on what has been seen and heard in the data are written down; tentative ideas about categories and relationships are developed. In qualitative research, the goal of coding is not like that in quantitative research, to count things, but to “fracture” the data and rearrange them into categories that facilitate comparison between things in the same category and that aid in the development of theoretical concepts and themes (Maxwell, 2005). The work of refinement of categories, exploration of relationships and patterns across categories is further divided into several steps. Maxwell (2005) called the distinctions in planning the categorizing analysis “organizational”, “substantive” and “theoretical” categories.

Organizational categories are broad areas or issues that were established prior to the interviews. They function primarily as “bins” for sorting the data for further analysis. They are useful as chapter or section headings when presenting the results, but they do not help much with the actual work of making sense of what’s going on (Coffey & Atkinson, 1996). This latter task requires substantive and / or theoretical categories, ones that provide some insight into what’s going on.

Substantive categories are primarily descriptive, in a broad sense that include descriptions of participants’ concepts and beliefs; they stay close to the data categorized and do not inherently imply a more abstract theory (Maxwell, 2005).

Theoretical categories, in contrast, place coded data into a more general or abstract framework. These categories are derived either from prior theory or from an inductively developed theory. They usually represent the researcher’s concepts, rather than denote participants’ own concepts.

The final step in the qualitative analysis was to interpret the findings, using the interviewees’ voice to illuminate one or more aspects of identified themes. As with the quantitative phase, possible alternative explanations of qualitative findings were also explored and discussed.

In sum, the whole process of data analysis started by collecting data and putting it into several “bins” – organizational categories, then classifying the data by participants’ concepts, and finally, systematically placing the coded data into a more general or abstract framework.

Computer-assisted data analysis

The computer program called NVivo was used in this study to organize and analyze the data. The software allowed the researcher to classify, sort and arrange thousands of pieces of information; examine complex relationships in the data; and combine subtle analysis with linking, shaping, searching and modeling. The software provided a much deeper level of analysis. The researcher could test theories, identify trends and cross-examine information in a multitude of ways using its search engine and query functions. It could make observations in the software and build a body of evidence to support the study.

Ethical considerations for the qualitative study

All social research involves ethical issues because research involves collecting data from people and about people (Punch, 1998). Ethical concerns should be at the forefront of any research project and should continue through to the write-up and dissemination stages (Wellington, 2000).

The researcher abided by the principle of consent when recruiting respondents for the study. A cover letter was used to introduce the researcher, the objectives of the research and the importance of the survey to those people receiving invitations to participate in the study. Participants were briefed and understood the nature of the study before they joined it.

The researcher shared the concern of Homan (1991) that the principle of consent should be "a continuing option" and that subjects joined research projects voluntarily. They also had the right to withdraw from the study. However, they were asked to sign a consent letter before participating in the research.

Confidentiality and anonymity are regarded as inalienable rights of all participants. To ensure anonymity, respondents were promised that any identifying information would be destroyed after the data-analyzing stage. No one would be able to identify any school or individual from the resulting report. The researcher would not disclose any information about the participants to anybody to protect the confidentiality of both participants and data. The researcher also ensured that the data was kept securely and that the form of any publication, including publication on the Internet, would not directly or indirectly lead to a breach of agreed confidentially and anonymity. The researcher also complied with the legal requirements in relation to the storage and use of personal data as set down by the Data Protection Act (1998) and any subsequent similar acts. In essence, people are entitled to know how and why their personal data is being stored, to what uses it is being put and to whom it might be made available. Researchers must have participants' permission to disclose personal information to third parties and are required to ensure that such parties are permitted to have access to the information. They are also required independently to confirm the identity of such persons and must keep a record of any disclosures. Disclosure might be written, electronic, verbal or any visual means.

In the process of data collection, the duration of the interviews was not more than one hour to avoid stress to the participants. Honesty should characterize the relationship between researcher and participants. No deception will bas made in this study.

The last issue is divided loyalties. Bell & Nutt (2002) talk about their "divided loyalties" in terms of how their professional and occupational commitments pull them in many different directions, creating ethical dilemmas arising from the multiple roles they bring to a research setting. Put in another way, researchers are human just like everyone else. Accordingly, they may bring some of their likes, dislikes, emotions, values and motivations to a research project. In the case of this study, the researcher was an aided primary school principal. The competition between schools due to market mechanism had created much anxiety and instability within teaching professionals. Although the negative feeling was counter balanced by the knowledge of market orientation from the literature review, much attention should be paid to the emotional bias throughout the whole process of the study.

CHAPTER EIGHT

RESULTS AND DISCUSSION

There have been numerous aspects analyzed in the literature regarding market orientation antecedents. Previous research into the barriers to market orientation can be divided into two approaches: organizational-focused and people-focused. In the literature review section of this study, existing research into the study of the different variables that may affect an organization's market orientation were reported. They were the organizational factors such as structure (Selnes *et al.,* 1996; Harris, 2000; Matsuno *et al.,* 2002), culture (Oakley, 2002), system (Wong *et al.,* 1989; Ruekert, 1992) and strategy (Slater & Narver, 1993; Morgan & Strong, 1998), as well as the people factors such as senior management characteristics (Harris & Piercy, 1999; Harris & Ogbonna, 1999) and employee attitude towards marketing (Oakley, 2002; Harris, 1998).

Although most of the above research demonstrated detailed analysis that may affect an organization's market orientation, till now, there has been no attempt to examine the barriers to market orientation in primary schools. The present study therefore attempted to extend and synthesize extant research into the obstacles to market orientation by performing a more holistic analysis of the role played by organizational and human factors in determining a school's level of market orientation, neither to describe the barriers individually, nor to develop a complete catalogue of barriers, but rather to review, identify and analyze critically those barriers present in primary schools as well as the interrelationship between them.

To target the above aims, in the Phase I quantitative study, the focus was converged to the investigation of organizational factors. Some influential factors were therefore identified by statistically analyzing and comparing the school data collected from the internet and the level of the related schools' market orientation. The items under investigation included organizational features like religious belief, years of operation, enrolment rate and the size as well as average teaching experience of the teachers in the schools.

Since the result of the Phase I quantitative study did not include any people factors, and only covered some organizational factors, to further investigate other influential elements, as well as to understand the mechanism of the factors interacting each other and how they affect the development of the market orientation in schools, a qualitative study was carried out. Because a deeper understanding of the attitude and behaviour of teachers and principals could be drawn from the in-depth interviews, the main target of the qualitative study was to understand the influence of human factors on the development of market orientation in schools as well as factors affecting the market orientation behaviour of the staff working in primary schools in addition to following up the questions arising from the Phase I study.

Descriptions of participating schools and interviewees

A total of four schools participated in the present study. School A was a large and young Christian school which had been established three years before. A total of 77% of its teachers had teaching experience of less than 5 years. It had a very high market orientation level (average score of its teachers was 4.32 in responding to the Ed MARKOR scale). School B, although also having a high level of market orientation (4.23), was a small non-Christian school. It had a very long history (established for 45 years). The percentage of teachers with over 10 years of work experience was 74. School C, on the other hand, had a rather low level of market orientation (2.73). It was a large, non-Christian and young school (established for four years) and most teachers (72%) had teaching experience of less than 5 years. School D had the lowest market orientation level among the four schools (2.35). It was a small Christian school with a long history (57 years) and 82% of its teachers had over 10 years of work experience. It will be closed due to insufficient enrolment in the coming two years.

Three teachers from each school were invited to participate in the interviews. In total 12 teachers and four principals had joined the study. In general, for teachers, there were six general teachers and six middle managers, six male and six female, six Christian and six non-Christian, seven with over 10 years of teaching experience, and five with less than 10 years of teaching experience. For principals, there were three female and one male, two Christian and two non-Christian, and their working experience ranged from 17 to 32 years. A clearer description of the interviewees is presented in table 18.

Table 18 Descriptions of the interviewees

Code	From School	Main duty in school	Sex	Religion	Working experience
Teacher 1	A	English panel chairlady	Female	Christian	18
Teacher 2	A	General teacher	Male	Christian	3
Teacher 3	A	General teacher	Female	Non-Christian	7
Teacher 4	B	Vice principal	Male	Christian	27
Teacher 5	B	General teacher	Female	Non-Christian	2
Teacher 6	B	Discipline master	Male	Non-Christian	23
Teacher 7	C	General teacher	Female	Christian	8
Teacher 8	C	General teacher	Female	Non-Christian	5
Teacher 9	C	Curriculum coordinator	Male	Non-Christian	22
Teacher 10	D	Vice principal	Female	Christian	33
Teacher 11	D	General teacher	Male	Christian	12
Teacher 12	D	Science panel chairlady	Male	Non-Christian	17
Principal 1	A	/	Male	Christian	17
Principal 2	B	/	Female	Non-Christian	30
Principal 3	C	/	Female	Non-Christian	25
Principal 4	D	/	Female	Christian	32

After analyzing the data and comparing the findings between teachers and principals from the schools with high and low levels of market orientation, the researcher found that the vast majority of the respondents regarded teachers as the major determinant of the development of school market orientation. Factors like personal characteristics, school culture, principal management, as well as school status directly or indirectly affect the attitude and practices of teachers in the management of market information. Similarly, previous studies highlighted employees at different organizational levels as the main barrier to market orientation. For example, Kelley (1990) examined the barriers to market orientation within the banking industry, suggesting that employees at all levels are prone to resisting strategic changes which come from market orientation. Thus, it is possible to contend that one of the major barriers to market orientation in primary schools in Hong Kong is teachers themselves. Hence, the remainder of this chapter will be organized as follows. Teachers' attitude towards market orientation will be discussed first. Other factors which may affect them will be discussed in the later sections. Before proceeding to the understanding of teachers' attitude toward school market orientation, in the following, evidence will be presented first to support the argument that teachers are one of the core factors of school market orientation development.

Teachers, the core factor of school market orientation development

Kohli & Jaworski (1990) emphasized holistic co-ordination and co-operation in their definition of the term "market orientation" because the implementation of most action plans or attempts to refocus an organization require effort on behalf of most staff. However, as articulated by the principal interviewees (especially for the principals in the low market orientation level schools) of this study, it was evident that teachers are not always willing to exercise market orientation activities. A number of reasons were cited for this, many of which were not unexpected, for example staff feeling unable to influence key issues of policy and practice, or having no sense of ownership. In his study, Harris (1998) also found that the commitment of front-line employees seriously impede the development of market orientation. He further claimed that if management naively assumes that employees will automatically follow the strategy of the organization plan this would meet with limited success. On the other hand, in this study, one of the questions in the interview was "Is there anything that affects the management of parental information in your school?" This is a direct question which asks for interviewees' opinion on the factors affecting their behaviour. As a result, all principal interviewees indicated that teachers were the main determinant, as indicated in the following quotation from a school principal:

> "Teachers are the most important people… they are the middlemen between schools and parents; they can get first-hand information from parents… and most respond with actions in relation to parents which needs teachers to operate. School or I can do nothing without the help of our teachers".

To further elaborate the argument above, we can put our attention on the market orientation activities in schools. Clearly, the concept of market orientation in this study included three kinds of activities: market information gathering, dissemination and responses. For information gathering, most respondents in this study agreed that teachers are the middlemen between schools and parents. They are the first people who can be contacted by parents. They are the majority of the school, so if all of them were involved in market-oriented activities, no matter what their functional title or position on the organizational chart, the sum of all the individual efforts on information gathering would largely bigger than through individual persons or departments. Besides, for information dissemination, the role of a principal of course should not be ignored, but if teachers do not pay attention to the market information or they don't report to the school any information they get, or even if school management announces the market information but teachers react passively, the overall work done is still unlikely to be large. Finally, teachers are the ones in school who operate. If the school management forces them to do anything or respond to marketing issues that they don't like, the effect is also seldom likely to be good.

Apart from only asking the principals, when teacher interviewees were asked the same question: "Is there anything affecting the management of parental information?" surprisingly, teachers seldom regarded themselves as the key person. But when they were asked another question, "What are your general views about market orientation in schools?" two kinds of teachers with either positive or negative attitudes could be found. By comparing the answers from the same person with a particular attitude and behaviour in the management of marketing information in this study, obviously, evidence showed that their attitude towards market orientation in schools directly affects their behaviour of doing market orientation activities as well as the overall market orientation level in their schools.

In sum, teachers play a very important role in school market orientation activities. However, market orientation was a new concept to most teachers in Hong Kong. Before trying to adopt it from the business field, several questions needed to be clarified. For example, what are teachers' beliefs toward school market orientation? Do they think market orientation is relevant to education? The same as the finding of Avlonitis & Gounaris (1997) in the literature review section, the attitude of considering marketing as the culture of satisfying customers' needs and of adapting products to customers' needs and wants leads to specific actions that must be taken in the marketplace. In other words, unless a certain attitude is formed, these actions never emerge. Their attitude towards market orientation in schools is crucial because it directly affects their behaviour of doing market orientation activities. In the following section, how teachers' attitude towards market orientation in schools affects their market-oriented behaviour will be further discussed.

Teachers' attitude towards market orientation in school

Conflicts between being customer oriented and educational beliefs

As discussed previously, Narver & Slater (1990) argued that one of the three components of market orientation is an orientation towards customers. Consequently, an appreciation of current and future customer needs, wants and demands is a key feature in any market orientation. However, the problem in schools is the unclear definition of customers. Put another way, are students, parents or both the customers of a school? In this study, the defined customers of primary schools were parents because the vast majority of parents enjoy the right to choose suitable schools for their children. Some informants (especially the interviewees from School A and B, the schools with high levels of market orientation) also agreed with this argument and noted that parents were also important stakeholders of their schools. They needed to be concerned about them. Here is the statement of a teacher from School A:

> "Education is for students, and I also know that if we understand more about parents, taking good care of them and responding to them accordingly, it will have very positive effects for the school, teachers and students."

To conclude, some interviewees agreed that market orientation, especially being customer oriented was of benefit to schools. Therefore, they supported the actions involved in school market orientation. In contrast, some interviewees from School C and D, the schools with low levels of market orientation, found the commercial values of competition and individual choice incompatible with educational goals of providing equitable opportunities for the learning and development of all people. Over-concerned parents appeared to create a tension between emphases on social values which put the good of the individual above that of society. Some teachers even felt that most parents don't understand what education is and what a student's real needs are. As the following quotation from an interviewee working at School D:

> "In my own understanding, market orientation subsumes an ideology that makes the needs and wishes of parents more important than teachers' preferred methods of working. It can also appear to define the value of our educational service solely in terms of what parents prefer and therefore encourages schools to consider the benefit of parents more important than ethically rounded processes of practice. In fact, teachers have their responsibility to tell parents and insist on the truth. If we are afraid of displeasing parents, it will create a disaster for the school, teachers and most importantly, the students."

Indeed, some teachers expressed the view that in many ways marketing was insignificant to their job and that an over-concentration on the market would merely distract attention from other "more important" issues (such as teaching and pastoral nurturing). Instead of doing market-oriented activities, some teachers regarded school success as being good academic results, pastoral education and their contribution to the good image of the school, as evidenced by the following quotation of an interviewee from School C:

"Most parents choose the school mainly due to its good academic results...first and foremost by being an effective teacher, providing an excellent education for the children, maintaining pupils' good behaviour, which in turn, promotes positive word-of-mouth communication within the community. The existing children are our best ambassadors: if they perform well, others will see and recognize that our school is good..."

To conclude, for some teachers, doing market orientation-related activities was not a priority, although they could accept limited explicit, formal responsibility for this activity. In fact, in most cases, their perceptions of school market orientation were combined with more than one of these ideas, producing apparent contradictions between ethical and vital issues. Some of the teachers went further by seeking to reconcile and rationalize these contradictions. In reality, the diverse perspectives of the teachers in the study towards market orientation and education ranged from complete rejection, to unreserved acceptance and support. If we take a closer look, differences are not only present in the acceptance of school market orientation, but also between the attitude towards parent and nearby schools. It was found that teachers paid much lesser attention to nearby schools than parents. The results are presented in the following section.

Conflicts between being competitor oriented and professional beliefs

The results of the Phase I study showed that schools were much more parental than competitor orientated. One of the reasons drawn from the interviews is illustrated by the following quote from a teacher:

"Nearby schools are our allies, so I don't think that regarding them as competitors is ethically correct."

Principals and teachers in all four sampled schools tend to see other schools not as competitors but as fraternal organizations working in the same general sphere. On the other hand, lack of competitive differentiation between schools also was identified as an impediment to developing a competitor orientation in primary schools. Some informants expressed their view that schools in the similar region receive similar funding from the government. The same environment, family background of the students and the amount of resources were not easily used to construct any characteristic which is dominant over other schools. Although some informants could distinguish a competitive advantage of larger and newer schools in the same region, they still claimed that they could do nothing to fight the new "luxury" schools.

As a result, most of the informants noted that they would not spend any resources to clarify what other schools are doing or design any strategy to compete with other schools. Another reason to explain this phenomenon is their contentment with the status quo. Before the discussion of this issue, it would be better to utilize the results above to explain the not-yet-finished argument in the Phase I quantitative study – the problem of different factor structure.

In the result section of the Phase I study, it demonstrated that the application of factor analyses to the scores of the items in the Ed MARKOR scale produced results that were somewhat different from those previously obtained (Jaworski & Kohli, 1993), since the analysis of the items included in the factors, "information generation", "information dissemination" and "responsiveness", identified, in each case, not a single factor, as expected, but ten factors as a whole. One of the explanations of this phenomenon was the different factor structure between primary school sectors and other business sectors. After the interviews, it can be argued that teachers' consideration of nearby schools as fraternal organizations, lack of competitive differentiation, as well as the different working environment, customs, habits and beliefs between organizations in educational and non-educational sectors could better explain this different factor structure.

Contentment with the status quo

While Jaworski & Kohli (1993) found that risk aversion was negatively associated with market orientation, the exploratory interviews conducted for this study led to the finding that contentment with the status quo significantly impeded the development of school market orientation, evidenced by the following quotation from the principal of School C:

> "As a principal, I find it quite surprising when in the first few years I became the principal, that some traditional thinking teachers told me not do so much and develop so fast because the school did not need this. They further claimed that the academic performance of our students was very good, meaning that our traditional method was successful, so there was no need to bring in new items. I think teachers don't want to take risks. A lot of work had been done to change their point of view."

Most of the interviewed teachers were content with the way in which their schools were managed and felt no need to introduce any change. They did not care about the change of parental needs and even if there were changes, they would not modify themselves to fulfil their changing needs. An interviewee from School C expressed his opinion:

> "I don't think we need to know about other schools really because even if we know their strengths and weaknesses, we don't really need to defeat them on that point… I think that we should let parents choose what they like. For example our school has an academic focus, while the nearby school emphasizes activities. Parents can choose what they want. I think parents should seek the type of school that suits their beliefs… I don't think that our school plan should be influenced by others. We should do what we think is right. If some parents really don't appreciate what we believe, they can just choose other schools."

Undoubtedly, trouble-free schools have the confidence to attract students by their own characteristics. They could insist on changes which are initiated by the market and can stay alive. But this cannot happen in weaker schools in a highly competitive arena. The issue about schools' competitive status affecting the market orientation level will be discussed in the later section of this chapter.

Factors affecting teachers' attitude towards market orientation in schools

Personal factors

Before discussing the external factors affecting teachers' attitude towards school market orientation, there are two personal issues which supposedly alter a teacher's attitude towards market orientation. This is teaching experience and teachers' religious beliefs. Here are the findings.

<u>Teaching experience</u>

Previous findings of the Phase I study showed that the longer the teachers had taught, the lesser attention and response they gave to the information coming from parents and nearby schools. To follow up this finding, the question "Would teaching experience alter the willingness to know or respond to parental and nearby schools information?" was asked. A young teacher from School C responded with the following answer:

> "Some teachers have a lot of teaching experience and are not eager to make the school more competitive, because mostly, they will not be fired because of their long teaching experience. If the school applies the mechanism of "Last in, first

out ", people with more teaching experience will not be afraid of being laid off. And I find that some of them are just waiting for retirement".

Contrary to the above argument, when comparing one who has worked in a school for just a short period, experienced teachers are more committed to their schools because of their lengthy attachment, as the following quotation from an experienced teacher from School B indicates:

"It is about survival; we get involved and actively discuss... We do not like to see our school going down. We have our feelings and love the school."

Interviews with teachers and principals found that years of teaching and age was not the main factor affecting the level of market orientation. Sense of belonging and working attitude of teachers were indeed the key factors for teachers to be market oriented. However, in my own opinion, those who only have a high sense of belonging to the school and good working attitude still are not guaranteed to favour school market orientation. Their attitude towards market orientation was in fact the most important determinant. Other than age, religious belief was supposed to alter someone's attitude; therefore religious belief is the topic of the following discussion.

Religious belief

From the results of the Phase I study, the religion of schools did affect the development of market orientation in school. The level of market orientation of non-Christian schools was higher than Christian schools. In relation to the religious belief of the schools, it was confirmed that Christian schools responded with less market orientation than non-religious schools. Form this result, it is reasonable to suppose that non-Christian teachers would perform higher in market orientation than Christian. Surprisingly, most of the interviewees did not agree that they were not so market oriented because they were Christian. They did not think that any religious belief would hinder their impression on school market orientation. Instead, one of the reasons to explain this dissension was that most Christian schools were more famous and popular. Teachers found no need to worry about parents and nearby schools and therefore had a relatively lower level of market orientation. Another reason may be related to the cultural differences between Christian and non-Christian schools. The cultural factor therefore becomes the topic of the next section. Before starting the next section, it is worth noting the importance and value of the mixed study design for this research. From the comparison of the results about religious issues in Phase I and II, it is obvious that after the exploratory stage of the Phase I quantitative study, the relationship between religion and level of market orientation was proved; however, the temporary explanation could be wrong. The in-depth interview of the Phase II qualitative study, at this point could explore and investigate the matter deeper, so that the underlying reasons can be found as reported above.

Cultural factors

Organizational culture refers to the set of shared assumptions and beliefs about an organization and its function (Deshpandé & Webster, 1989). Cooke and Rousseau (1988: 248) defined culture as "the ways of thinking, behaving, and believing that members of a social unit have in common". Culture has been considered by anthropologists as a shared set of cognitions among members of a social group (Smircich, 1983; Ouchi & Wilkins, 1985). Since normative beliefs of an organization's members are intrinsically linked to culture (Rousseau, 1990), it is reasonable to consider that teachers in the same school would largely be influenced by its culture.

Culture relates to the fundamental values determining the actual practices in an organization: the way people behave or the way they do things in that organization. It is also a key factor to the development of market orientation. Messikomer (1987: 53-4) presents a broader people-barrier argument in terms of the importance of corporate culture as the major barrier to market orientation:

> "The difficulty often is not so much in getting management to accept this (market oriented) vision, but rather in overcoming the inertia bred of individual corporate cultures, because creating a marketing community involves changing the fundamental way in which a company and its employees see themselves, their business environment, and the future."

Day (1994, 1999) also mentions the capabilities of market-driven organizations: market sensing, market relating and strategic thinking as fundamental and very operational issues in defining and implementing market orientation. He further claims that these capabilities are clearly linked to what underlies an organization: its culture.

As the last section mentioned, teachers' attitudes towards market orientation was one of the most important determinants of the market orientation in schools; therefore, to understand the general culture in schools and its dynamic between teachers can provide a hint to comprehend the barriers present in school market orientation building. Hence, a discussion of school culture would be the beginning of the presentation of the external factors affecting teachers' attitude towards market orientation in schools.

Starting this discussion from a literature review, previous research has proposed the idea that constructive cultural types should be related to higher levels of market orientation (Rousseau, 1990). The line of reasoning is that cooperative norms, by definition, encourage behaviour such as goal attainment, enjoying one's work, and maintaining one's personal integrity and standards (Klein, Masi, & Weidner, 1995). The implementation of this behaviour should have a direct, positive impact on service quality and an organization's level of market orientation. Although the above argument is widely accepted by many scholars and practitioners, some research findings suggest that constructive culture not only cannot benefit the development of market orientation, but even sets up a road block to it. The argument is that in an organization which emphasizes harmony and constructive culture, deviations from the mainstream are viewed as irrational, intrusive and unfair. However, achieving a market orientation requires a voice for the consumer and for focusing on the market environment, and in a culture where cooperation is the norm, such a voice may never take shape or be heard. Follow this thread, Oakley (2002) claimed that a constructive culture may not support a market orientation. Rather, a power culture where competition and utilizing one's power are the norm may be better suited to achieving such market orientation. In my opinion, the above arguments could both be true. However, the key to success is the matching of appropriate culture with its particular context. Owing to this reason, efforts were paid to clarify and identify which kind of culture would benefit the school market orientation. As a result, after the interviews of the present study, some specific cultures were identified that may affect the development of market orientation in schools.

<u>Open culture</u>

The interviews of the present study showed that the openness of the school culture affected the development of market orientation in several ways. The following quote demonstrates the different phenomena when a teacher is working in different schools with different kinds of culture:

> "When I worked in a previous school, the vice principal was very nice; she was willing to listen. Because I liked the school, I would do anything to make the school better. But it was not the same in School C. I don't think that the management team is willing to listen. Normally, we would not have the chance to

> discuss any school issue. Therefore, we would not express what we thought or what we heard; we would keep it in our hearts."

The above phenomenon could be better understood by the work of Harris (1998). In his study, one major barrier to developing market orientation in front–line employees stems from the inherent characteristics of employment at the lower level of the organizational hierarchy. He claimed that employees are aware of potential changes or issues which can potentially improve the level of market orientation. However, they are unwilling to do so. Part of the reason is that the limited power of front-line employees limits the culture of an organization to one of obedience rather than market responsiveness. The following quote from a teacher working in School C might give some insights into this argument:

> "Once when I heard information from one of our parents, I tried to report it to someone senior in the school. After reporting it, another senior teacher warned me that I was overstepping others' authority and censured me for spreading rumours... I swear I will keep silent even if I notice anything."

Inspection of the above quotes shows that, obviously, an open and friendly culture with thorough communication within schools may break the barrier that arises from the hierarchy.

Over-focused department orientation

To contrast the open culture, the second issue which emerged as a particular barrier to the development of market orientation was the over-focused department oriented culture. In Schools C and D, the teamwork and closeness appeared only within departments but not the whole school. In other words, members of individual departments communicate well within each department and are concerned only about matters related to them. The following quote from a teacher working in School C shows this:

> "We're a good team. We concentrate on curriculum development and make sure that all academic matters are the best they can be... We don't step on others' toes – they don't mess with ours – that's the way it should be ..."

See this quote from another teacher working in the same school:

> "The traditional thinking in this school is to do the best according to your duty. No one should say anything about other departments because every department is headed by a senior and respected member of staff who would not like to hear any opinions from other departments... the panel chair will regard those comments from other departments as a kind of attack."

The above shared value of "department orientation" acts as a strong obstacle to the furtherance of the school's market orientation. Without true functional integration, information sharing and coordinated action is unlikely to happen (Gummesson, 1991). As a result, a high level of market orientation cannot be achieved. This finding is also supported by the argument from Jaworski & Kohli (1993) that inter-departmental conflict is found to affect intelligence dissemination whilst connectedness influences all components of orientation.

Organizational culture, as discussed above, represents beliefs and norms regarding behaviour within a school. How these beliefs and norms relate to every employee's everyday marketing activity requires a shift in analysis from the abstract notion of organizational culture to the more tangible notion of practices. In other words, how does an organization's culture influence its employees, and as a result affect teachers' attitude towards market orientation in schools? The answer is, as Church (1995) argues, that the dyadic linkage between supervisor and subordinate is a powerful means of transmitting culture, information, practices, beliefs, and attitudes. In the following section, the management characteristics of primary school principals which may affect teachers' attitude towards market orientation will be discussed in more detail.

Management factors

Chaganti & Sambharya (1987) implicitly studied factors which influence the development of market orientation through the analysis of how the characteristics of top managers affect the strategic orientation of an organization. Their main finding was that the background, commitment and ability of top managers impacted greatly on the orientation of an organization. Jaworski & Kohli (1993) also found that the amount of emphasis which top management place on market orientation greatly affects each component of market orientation. These findings are consistent with the present study. From the results of the interviews, it was found that the market orientation of teachers was heavily influenced by the principals. How principals respond to the marketing information and the attitude of principals towards market orientation in schools seem to be very important in the formulation of market orientation values and "translation of them into daily practices". In the following, hindrance from principals on the attitude and behaviour of teachers is discussed. To report the result, it is not attempted to develop an exhaustive list of barriers or to develop a typology of obstacles, but rather to identify and review the principal management behaviour that appears to inhibit or encourage market orientation.

Misunderstanding of market orientation

Changing behaviour is never easy since people continue to act as they have always done – even when those actions fail to realize their objectives. Hence, the first task in any strategy aiming for market orientation is to make the concept clear to staff. To become meaningful for anyone, new abstract concepts must be reflected upon and given content. However, the present reported findings indicated that some principals were confused over what it means to be market-driven. Supported by the study of Ottesen & Grønhaug (2002), managers in their study vary in their understanding of the market orientation concept. One explanation might be that they are not acquainted with the marketing literature and are therefore restricted in their ability to adopt the concept. Some managers in their study even created their own understandings of market orientation, adapted to the context in which they were embedded. They are influenced by factors such as contextual experiences and expectations. Back to the present study, the problem is, if even principals do not have a clear concept of school market orientation, how can they influence their subordinates?

Discussions found that except the principal from School A, principals from Schools B, C and D were unable to distinguish between the practice of marketing and a focus on market trends and needs in schools. The following quotation typifies some principals' view:

> "What is the meaning of market orientation? Do you mean marketing? I don't think we have any professionals in my school to do the marketing job."

This confusion was compounded by the frequent misconception by school principals that "market orientation" equates to "advertising". Following this thread, if the principals regard market orientation as advertising, then only those with student enrolment problems will pay much attention to it. Moreover, compared to the interactive properties of market orientation which concern their customers' needs and wants, as well as taking action based on market information, advertising seems to be much more a one-way action. It is all about the announcement of the excellence of the school to their parents. It is seldom related to taking any action to change and improve the school with reference to parents' needs and wants. Because of the above reasons, some principals disparage the importance of market orientation in school.

On the other hand, even if some principals understand the definition of market orientation to some extent, they still cannot relate it to the sustainability of the school. The informants of the present study denoted that their working lives tended to be dominated by operational issues which required immediate attention leading to a general commitment to reactivity rather than pro-activity. And they tended to consider short-term priorities more important than long-term strategic issues. They also regarded market orientation activities to be the extra workload on top of the usual overloaded daily routines for them and their staff.

Certainly, the time restrictions and "short-sightedness" mentioned here would appear to impede not only their capacity for improving market orientation levels, but also militate against the possibility of training to improve their marketing skills.

Congruent with the findings in relation to principals, for some teachers, the term "market orientation" was also equal to advertising. When they were asked to describe what they understood by the term 'market orientation', the majority attached meanings to the concept of marketing associated with selling. Some teachers in this study expressed doubts about the compatibility of (their own definitions of) market orientation and education. The confusion of teachers regarding the nature of market orientation is also apparent in transforming the abstract nature of market orientation into tangible actions.

During the interviews, however, most teachers and principals broadened their definition of market orientation while referring to the whole range of activities taking place in their schools. It is important to know that a broader definition, which encompassed all the activities that helped them to get to know their students' parents and nearby schools seemed to reduce their hostile feeling towards school market orientation.

To conclude the above, as a leader, if he / she wants to know more about their parents and competitors, he / she has the responsibility to clarify the market orientation concept by themselves first and then make it clear to all staff because as

Jaworski & Kohli (1993) stated, only if top managers express the importance of a commitment towards satisfaction of consumer needs, will the rest of the organization assume that orientation. In the following, there will be some discussions about the management behaviour of school principals which may either serve to enhance school market orientation development or be a roadblock which prevents such development.

Management behaviour

Given the fact that no single individual can achieve organizational goals without the help of others, it is important to gain an understanding of how and why certain leaders are able to transform their organizations and instil a genuine belief in focusing on market needs. The findings of this study suggest that an awareness of the role of leaders and the effect of leadership style provides a partial explanation of why the process of developing a market-oriented culture proves so elusive in some schools and is yet achievable in others. Other than creating school culture, the development of market orientation in schools is heavily affected by the school head in several ways. First, managerial processes, such as the manner by which employees are compensated and rewarded, recruitment and selection serve as antecedents to developing a market orientation (Ruekert, 1992). Second, to investigate the relationships between employee and management behavioural factors and market orientation, a two-phase research design was adopted by Harris & Piercy (1999). Their finding was that there was a positive relationship between the amount of vertical communication and the level of market orientation achieved. More frequent communication is likely to enable the dissemination of collected market intelligence and facilitate a timely market-focused response. This finding is important because it underlines the significance of actively managing internal communications to implement important strategies. Investing in truly effective internal communications programs that are full, interactive and respected within an organization, may be critical building blocks in moving toward a market-oriented business.

In fact, managerial practices are factors over which managers have control and can change relatively quickly. Previous theory has identified that the relationship between managers and employees is an extremely effective method of disseminating information and is a powerful means of transmitting culture, beliefs and attitudes (Church, 1995). Hence if a school wants to change its teachers' attitude and practices in relation to market-oriented activities, it should start by changing its managerial practices. However, although the suggestion here is quite simple and straightforward, it is not always easy to achieve. One of the reasons to explain this failure is the leadership and personality of principals. There are some descriptions in the following sections.

Leadership

In a UK study, Harris & Ogbonna (2001) investigated the relationship between leadership style and market orientation empirically. They used the Narver & Slater three-component model of market orientation and three types of leadership: participative, supportive and instrumental. The results showed that participative and supportive leadership styles are positively associated and instrumental leadership is negatively associated with market orientation. This argument is echoed by the findings of the present study. In one of the sampled schools, the impact of symbols was a powerful barrier to market orientation. The principal symbol which proved an influential barrier to market orientation was the school's hero. Her leadership style was traditionally instrumental. The school was founded by her and was still the principal of the school. The principal ruled the school with almost dictatorial power. She was almost in charge of every little thing in that school. The consequence of such a dominant personality and such a concentration of power was that no one in the school could have his or her own stand. The attitudes and opinions of this figurehead were expounded as the only rule of the school and her beliefs were extolled as the ideal. No one in that school needed to worry about the school's development; the principal took on the entire job of taking care of the information of parents and nearby schools. There were seldom discussions on market information because the principal did not release it to the teachers.

A principal with too strong a character may hinder the development of market orientation. On the other hand, the findings of this study showed that there are strong and positive associations between supportive and participative leadership styles and market orientation. Specifically, the results of the study indicated that leaders with supportive or participative styles may provide an appropriate environment in which market-oriented culture change may be possible. Here is a quotation from a teacher working in School B:

> "The collection of parents' and nearby schools' information was done by all school members, and the received information was seldom only taken care of by the principal but the issues would be brought to the table of the executive's meetings or general staff meetings because in our school, we can join the discussion and decision of many issues ... I can feel that the principal genuinely wants us to participate... I feel I am a member of a big family."

Given the findings of this study, market-oriented schools probably need principals acting as employee-oriented leaders with a concern for empowered people, democratic leaders and leaders with a delegating, participative, supportive or coaching style. Autocratic and instrumental leaders may be typical of non-market-oriented cultures.

Personality

In one of the sampled schools, there were two principals who had worked in the same schools in the last 20 years. The staff in that school could easily identify the different personality and attitude towards their market orientation. It is a typical example of the understanding of the leader's personality affecting the market orientation of the school. See the following quote from a teacher working in School D:

> "The former principal was an active and energetic person; under her leadership all of the staff were alerted to the change of the environment... She reacted to the problem of student enrolment actively and she had many connections with education department persons so that we had more information about student distributions and how many students would enrol in our school next year. We adapted to the changes very fast and morale was high. Compared to her, the present principal is more passive and not sociable. She doesn't like to meet people, never detects the outside world and seldom speaks to parents... Our school has become isolated from parents and the outside world."

Since one of the main sources of obtaining market information is through principals, a sociable and ready for change character would benefit any principal when leading his or her subordinates to become more market orientated. The point is that principals should set up a model for their staff to imitate. If he or she wants their staff to be market oriented, he or she should act first.

Most of the human factors on this point which were found in this study have been discussed. Last but not least, there is an external factor which seriously affects the attitude and behaviour of teachers towards market orientation in schools. It is the competition status of the school.

Competition status

The competitive environment is positively related to high market orientation. This is supported by Davis (1991) who detected that perceived environmental turbulence is positively associated with market orientation since this perception will increase the person-in-charge's interest in reducing uncertainty and search for ways of surviving effectively. In this study, some of the teachers perceived a competitive, sometimes even wild, educational environment in which schools, at least in part, compete to attract students. Several teachers used the discourse borrowed from the business world including ideas such as 'survival' and 'competitors', which signals their competitive awareness. There were also teachers in this study, who despite their concern for the negative consequences for educational institutions, appeared to perceive marketing as inevitable, indispensable or even as positive for schools in a competitive environment.

In sum, although there was no significant difference between schools with high and low levels of enrolment in the Phase I study, the stability of a school does affect the level of market orientation. The following quote from a teacher working in School B demonstrates the effect of competition on a school and its staff:

> "We were a famous school in the district ten to 20 years ago. We did not worry about student enrolment. These years, may be because of the decrease of the population, the student enrolment rate has dropped… I remember that once the student enrolment rate dropped, we began to do a lot of work to save the school."

In fact, enrolment rate is an index of the stability of a school. Schools with insufficient enrolment are eager to fight for more students. Therefore, theoretically, their market orientation level should be relatively high. However, some schools facing enrolment problems prefer to advertise their schools but do not try to know more about their parents and nearby schools and respond accordingly. This phenomenon is illustrated by the following quote from a teacher working in School D:

> "We started to advertise the school; we tried to let more people know about our characteristics. We believed that the problem of enrolment was mainly because the parents didn't know our strengths… These were the main strategies we did to rescue our school."

Obviously, the above phenomenon was initiated due to the problem of market orientation misunderstanding, the issue that was discussed in the previous section.

Compare and contrast the data from schools with high and low levels of market orientation

Both positive and negative attitudes towards market orientation in schools, and both constructive and destructive factors on the development of market orientation in schools were observed. One of the reasons was the inclusion of schools with both high and low levels of market orientation in this study. Other than only having multi-perspectives ideas and sharing, another finding from the comparison of the schools with different market orientation levels was the discovery of the importance of cultural influence on individuals in schools. After the analysis of the data obtained by the four sampled schools, it was found that the responses of the individuals, including attitude towards market orientation in schools, from the same school appeared to be more or less the same. In other words, all the teachers from schools with high levels of market orientation behave in a highly market-oriented way, no matter his / her religion and teaching experience, and vice versa. This phenomenon is strongly supported by some factors, like a school's culture, principal leadership and management, as well as a school's stability possibly being more dominant than the personal factors like teaching experience and religious.

Even if individuals behave differently in different schools, as described above, one exception is that individuals from different schools behave in the same way: most of the interviewees did not realize that their nearby schools were competitors, no matter which schools they were working in.

Another important finding from comparing the data of different schools was: previous studies showed that a clear understanding of the concept of market orientation would help the development of market orientation in an organization. However, in the present study, there was an exception. One principal appeared to be not very familiar with the concept of market orientation but her school's market orientation level was still very high. When comparing her school with others, it could be found that staff in her school behaved actively in relation to the marketing information due to the emphasis on communications (between staff as well as parents and staff). The culture of her school was open and friendly; staff were welcomed to give comments and advice. They were eager to learn more from the environment and keep on changing. Understanding of market orientation concepts for her or her school appeared to be not so necessary for the development of market orientation.

When comparing School A (highly market oriented) and C (low market orientation), the biggest difference between them was the stability of student enrolments.

Although Schools A and C were both new and big schools, School A was located in an area in which the student population was dropping year after year. On the other hand, School C was situated in a new developed area into which many new families were moving. It is reasonable to say that stability of the schools may affect their level of market orientation.

In this chapter, factors affecting the development of market orientation in schools were discussed. In the next chapter, the overall conclusion and implications of the whole study and further direction of the study will be presented.

CHAPTER NINE

WHAT HAVE WE LEARNED ABOUT MARKET ORIENTATION IN HONG KONG PRIMARY SCHOOLS?

This chapter concludes the dissertation by first discussing the main findings and contributions of this dissertation. The main focus is placed on the major additions to the theory in existence, some of which are new and some which are already present in the primary education setting, but has not previously been related to market orientation. The discussion includes firstly, the differences between employees of primary schools and other industries in relation to understanding and applying the market orientation concept. Secondly, there is a description of whether market orientation can produce positive effects for schools and finally, the drivers of and barriers to school market orientation development. After that, implications for both school executives and researchers are provided based on the findings. Before giving suggestions for future research, the limitations of this study are considered in advance.

Most of the studies in market orientation, so far, have been conducted in many different industries (for example, Manufacturing: Singh & Ranchhod (2004); across industries: Pelham & Wilson (1996); service: Egeren & O'Connor (1998); non-profit: Balabanis, Stables & Phillips (1997); public sector: Cervera, Mollá, & Sánchez (2001) and university: Caruana (1998)). To date, there has been relatively little research conducted on market orientation in education, in general, and primary schools, in particular. The aim of this dissertation therefore, was to synthesize the existing research, as well as to add knowledge regarding market orientation in primary schools. In the following, the discussion will first of all focus upon the differences between employees of primary schools and other industries on understanding and applying market orientation concepts.

The differences between employees of primary schools and other industries on understanding and applying market orientation concepts

Teachers and principals' thoughts on the term 'market orientation'

<u>Ranging from complete rejection, to unreserved acceptance…</u>

The first dissimilarity between employees of primary schools and other industries is that some teachers and principals find market orientation concepts incompatible with their job nature and beliefs. Employees of manufacturing industries or other companies would seldom do so.

Some interviewees in this study agreed that market orientation, especially that which is customer oriented was of benefit to schools. Therefore, they supported the actions about school market orientation. At the opposite end, some interviewees found the commercial values of competition and individual choice incompatible with educational goals of providing equitable opportunities for the learning and development of all people. Over-concerned parents appear to create tension between emphases on social values which put the good of the individual above that of society. Some teachers even regarded most parents as not understanding what education is and what students' real needs are. Moreover, some teachers expressed the view that in many ways, marketing was insignificant to their job and that an over-concentration on the market would merely distract attention from other "more important" issues (such as teaching and pastoral nurturing). Instead of doing market-oriented activities, some teachers regarded school success to be attributable to good academic results, pastoral education and their contribution to the good image of the school.

To conclude, for most teachers, doing market orientation-related activities was not a priority, although they could accept limited explicit, formal responsibility for this activity. In fact, in most cases, their perceptions of school market orientation combined more than one of these ideas, producing apparent contradictions between ethical and vital issues. Some of the teachers went further by seeking to reconcile and rationalize these contradictions. In reality, the diverse perspectives of the teachers in the study towards market orientation and education ranged from complete rejection, to unreserved acceptance and support.

Part of the reason for the different degree of acceptance of school market orientation would be because of different personal values, competitive intensity and organizational culture, etc. (The variables for school market orientation development will be discussed in a later part). For the rest, after thorough interview and analysis, the researcher found that some of the negative feelings of the teachers and principals on school market orientation were based on a misunderstanding of the concepts. Here are the explanations.

<u>Misunderstanding of the concepts</u>

The present reported findings indicated that some principals were confused over what is meant by market-driven. This confusion was compounded by the frequent misconception by school principals that "market orientation" equated to "advertising". In fact, compared to the interactive properties of market orientation which concern customers' needs and wants, as well as taking action using the market information, advertising seems to be much more a one-way action. It is all about the announcement of the excellence of the school to their parents. It is seldom related to taking any action to change and improve the school with reference to parents' needs and wants. Because of above reasons, some principals disparage the importance of market orientation in school.

Congruent with the findings for principals, for some teachers, the term "market orientation" was also equal to advertising. When they were asked to describe what they understand by the term market orientation, the majority attached meanings to the concept of marketing associated with selling. Some teachers in this study expressed doubts about the compatibility of (their own definitions of) market orientation and education. The confusion of teachers regarding the nature of market orientation is also apparent in transforming the abstract nature of market orientation into tangible actions. The tangible actions may include careful collection of market information, inter-departmental dissemination and clear responses by adapting corresponding policies.

Supported by the study of Ottesen & Grønhaug (2002), managers in their study varied in their understanding of the market orientation concept. One explanation might be that they were not acquainted with the marketing literature and were therefore restricted in their ability to adopt the concept. Some managers in their study even created their own understandings of market orientation, adapted to the context in which they were embedded. They were influenced by factors such as contextual experiences and expectations.

During the interviews, however, most teachers and principals broadened their definition of market orientation while referring to the whole range of activities taking place in their schools. It is important to know that a broader definition, which encompassed all the activities that helped them to get to know their parents and nearby schools seemed to reduce their hostile feeling towards school market orientation.

In the above, the attitude and understanding of school workers towards school market orientation were stated. Other than this, people working in schools also had a quite different view from the one working in other industries on "competitors" and "customers". Here are some brief descriptions.

Schools were much more parental than competitor oriented

The second plausible difference between employees of primary schools and other industries is the different emphasis on customers (parents) and competitors (nearby schools). Different to other business companies which would see customers and competitors with more or less the same weight, schools were found to be much more parental than competitor oriented.

In the data from the sampled schools, schools were much more parental than competitor oriented. The scores of questions related to parents were from 2.72 to 3.99 out of a maximum of 5, with an overall average of 3.52. Compared to these, the scores of questions related to nearby schools were relatively lower, from 2.41 to 3.5, with an overall average of 2.97.

The reasons expressed by teachers and principals to explain the different emphasis on parents and nearby schools included the following main points. First, historically, principals and teachers tend to see other schools not as competitors but as fraternal organizations working in the same community because a decade beforehand, the competition between schools was much less than at present, since at that time the number of students in Hong Kong was plentiful. They were sufficient for the government to allocate them equally to all schools, so every school could survive. The relationship between them was much friendlier. They were living happily without worrying about student enrolment. Because survival was never the problem of the schools at that time, severe competition between schools seldom happened. They would be much more likely to maintain a friendly relationship between schools and claimed that there was no need to consider nearby schools as competitors. This was the traditional thinking, and it is also explained in this competitive era, in which nearby schools compete for the same population of students, teachers and principals which exhibit "socially desirable responding" and are not willing to admit in public that their nearby schools were their competitors.

Secondly, principals and teachers in this study claimed that there was too much workload. The working lives of the interviewees of the study tended to be dominated by operational issues which required immediate attention leading to a general commitment to reactivity rather than pro-activity. They need to prioritize their job. And most of them regard parental information as being more useful than nearby schools' information. They claimed that every school has its own context like physical being, tradition, reputation, vision and mission, which is not easy or which they have no reason to copy. These time restrictions on principals and teachers would appear to impede not only their capacity for improving market orientation levels, but also militate against the possibility of training to improve marketing and management skills.

Thirdly, principals and teachers also found that it was not easy to get the information from other schools and mostly, they can only through other schools' websites and brochures, get to know them which seems to be too apparent. Moreover, some may wish to "save face" and so are not willing to take references from others because some may argue that studying from others means admitting others are better than them.

Different factor structure by using the Ed MARKOR scale

In the previous sections, it was found that the factor structure of Ed MARKOR scale was different from the original MARKOR scale. The difference was, the factor analysis forced ten factors each with eigenvalues of greater than one in Ed MARKOR, where only three factors in the original MARKOR scale. In other words, the items of Ed MARKOR scale was not like MARKOR that the items were divided into three sub-sections.

In this study, several possible reasons have been found to explain this difference. First, there were many modifications to the question items. By means of several pre-tests, new items were added. And some items were deleted. Some subjects were changed. Some items were modified a lot because in the field of education, the described business situation seldom appears. These modifications may be one of the crucial reasons why the Ed MARKOR scale did not produce the same results as did the MARKOR scale. Further modification of the Ed MARKOR scale by means of changing the meaning and wording as well as further theoretical and empirical work may be required. Future research could also start by reassessing the present conceptualization of market orientation for application in an educational setting, as well as the resulting item pool.

Secondly, in the last section, it was noted that schools were much more parental than competitor oriented. Since the questions of Ed MARKOR about the management of parental and competitor information were scattered into different categories including the generation of market information, the dissemination of the information and the implementation of the response, even schools with high motivation on parental orientation may perform badly in competitor orientation. Due to the greater emphasis on parents than nearby schools, schools may have many activities in relation to the management of the information of parents but not on nearby schools. The factors affecting the responses may mainly be divided into whether the questions concerned parents or nearby schools. Thus, this would not be the same as the original MARKOR scale that used three categories (intelligence generation, dissemination and responsiveness). These characteristics may alter the factor structure and make it totally different from the factor structure of other business sectors because in many sectors of business, they see customers and competitors with more or less the same weight. In other words, unlike schools, if an organization's market orientation level is high, they more or less equally put effort into both customers and competitors. This is one of the reasons why in the process of testing convergent validity, the Ed MARKOR scale cannot produce the same performance of the original MARKOR scale by using factor analysis. Apart from this, the parental-related questions all obtained exceptionally high scores. In other words, there was not a lot of distinction between schools in their responses to the questions of parental-related questions. It, therefore, cannot create a factor structure because it needs diversity in the population to get the correlations to operate.

Although there are differences between primary schools and organizations of other industries, there are also similarities between them. In the present study, just like the companies of other industries, data collected from some interviewees showed that market orientation could produce positive effects for primary schools. A discussion of how this could happen follows.

Possible positive effects for schools from market orientation

Studies cited in the literature review chapter provide solid ground that supports the existence of a relationship between market orientation adoption and performance of organizations. However, none of them were related to primary schools. In other words, the role of market orientation in elementary education still has received no attention until now. In this study, after analyzing the interview data of principals and teachers, some positive effects for schools from market orientation were identified. The findings are stated below for further discussion.

Despite the financial performance, market share and product-related performance emphasized in both manufacturing and service industries, many market orientation consequences found in previous studies on other organizations could have the same possible consequences for primary schools; see table 19. They include improved service quality (Kaynak & Kara, 2004; Pelham & Wilson, 1996), promoted new policy success (Avlonitis & Gounaris, 1997; Harrison-Walker, 2001; Kaynak & Kara, 2004; Kumar, Subramanian, & Yauger, 1998; Pelham & Wilson, 1996; Singh & Ranchhod, 2004) and enhanced competitive advantage (Avlonitis & Gounaris, 1997; Pelham & Wilson, 1996). School market orientation may also enhance employees' organizational commitment (Caruana, 1998; Jaworski & Kohli, 1993) and teamwork (Avlonitis & Gounaris, 1997; Jaworski & Kohli, 1993; Lai, 2003). School market orientation is also related to parents' response on reputation or word of mouth (Kaynak & Kara, 2004) and retention (Harrison-Walker, 2001; Kaynak & Kara, 2004; Lai, 2003; Singh & Ranchhod, 2004; Subramanian & Yauger, 1998; Tse *et al.*, 2003), as well as the attraction of new customers into the market (Andreassen, 1994).

Table 19 Summary of the school market orientation consequences

Consequences in primary schools	Related studies (based on the organizations not including primary schools)
Service quality and new policy success	
Improved Service Quality	Kaynak & Kara (2004); Pelham & Wilson (1996)
New policy success	Singh & Ranchhod (2004); Kaynak & Kara (2004); Pelham & Wilson (1996); Avlonitis & Gounaris (1997); Harrison-Walker (2001) ;Kumar, Subramanian, & Yauger (1998)
Competitive performance	
Competitive advantage	Pelham & Wilson (1996); Avlonitis & Gounaris (1997)
Employees' response	
Organizational commitment	Caruana (1997); Jaworski & Kohli (1993)
Teamwork	Avlonitis & Gounaris (1997); Lai (2003); Jaworski & Kohli (1993)
Parents' response	
Reputation	Kaynak & Kara (2004)
Retention	Singh & Ranchhod (2004); Kaynak & Kara (2004); Lai (2003); Harrison-Walker (2001); Subramanian & Yauger (1998); Tse *et al.* (2003)
Attract new customers into the market	Andreassen (1994)

Some market orientation effects found in other industries were not relevant to the present study. They include the following. Firstly, financial performance was not considered in this study. In fact financial performance is seldom emphasized in aided primary schools because aided primary schools in Hong Kong are funded by the government. The main expenditure for providing educational services is the salary of teaching staff which is fixed by a uniform salary scale and the number of teaching staff is also fixed by the government, which is unlike private companies where their main organizational target is making profit. Besides, private companies can improve their financial performance by cutting production costs or increasing product price. Secondly, market share as a consequence is also inappropriate for primary schools because the maximum number of students in every aided primary school in Hong Kong is fixed by the government. The number of classrooms also restricts the expansion of student numbers, no matter how good or favoured by parents they are. Lastly, product-related performance of course is not relevant because simply, education is a service rather than a product.

On the other hand, although the consequences named above were individually categorized, they are indeed interrelated and mutually dependent. And the journey from market orientation to different positive effects is also quite lengthy and complex. For example, the service quality may affect the satisfaction of parents and in turn impact the competitive power of a school. Because of these reasons, interaction between them will be emphasized in the following discussion.

Improved Service Quality to meet parental needs

Parents of today expect a higher level of service quality from schools than ever before because they have more choices and possess more chances to get information from schools. They have more choice of school because the number of children in society is decreasing; therefore they can enrol in most of the schools they like. On the other hand, by means of new policies set up by the government and new information technology, schools need to put their school plans, reports and much information on their websites. Parents can easily access them.

However, quality improvement efforts may not match parental needs because of their narrowly defined and internal focus. This can be partially supported by the result of question 23 (Our school plans are driven more by the response to parental needs than by the school's own needs) in the Phase I study. Compared to the average score for the parental-related question (3.52), the score for this question (2.91) was quite low. This can also be supported by the finding of Kordupleski *et al.* (1993). They claimed that one major cause for the mismatch has been the absence of the marketing link in quality management efforts to discern the voices of customers. It is important to constantly gather information, anticipate parents' needs and wants, and strive for improvement, because parental quality requirements vary from region to region and time to time. In this regard, schools must ensure that at least part of their quality improvement efforts is focused on improving parents' satisfaction rather than only on the management's own perception of quality requirements.

As argued by Lai (2003), by means of enhancing the market orientation level, organizations cannot only "do the right things" in understanding customers' needs and wants, but also continuously process improvement for "doing things right". Put it in the context of primary schools, with particular respect to ensuring that a school is "doing the right things" in the quality improvement process, market orientation contributes to determining parental quality expectations, translating them into quality strategies, and coaching all staff to attain the goal of parental satisfaction. By choosing what needs to be done and resetting priorities, they can be more proactive. It also provides quality assurance and prevents an inward focus of the quality management efforts. On the other hand, market orientation is important because it enables schools to understand the market trend (what is going on in nearby schools) and develop appropriate strategies to better meet the requirements of the parents in the same regions.

Better commitment and teamwork

The above described the reasons for matching quality improvement efforts and parental needs. In fact, a clear definition of quality within schools is also important because consensus regarding the concept of quality is important to drive performance, without which the organizational direction might be obscured (Hardie, 1998) and the effort made by individuals may be cancelled by unsystematic management. In fact, quality is an abstract concept and means different things to different people. Cross-functional interaction and consensual understanding of the definition of quality are required. In this case, market orientation acts as a bridge helping staff members to understand and interpret their roles in serving parental needs. It functions as a role model by identifying and defining the purposes of services to staff members and leading them to achieve parental satisfaction. It helps to ensure that information collected from parents is used effectively as part of a quality improvement strategy, making parental perceptions and needs meaningful and explicit to all staff. It also serves to communicate parental needs and requirements and the associated implications throughout the school to ensure consistent decision-making and actions, and to motivate corrective actions and method improvements when anyone fails. Because all staff have the same target, so they learn and feel the change of the environment and the needs of the parents, leading to a sense of pride in belonging to an organization in which all departments and individuals work toward the common goal of satisfying customers (Jaworski & Kohli, 1993), hence, commitment, teamwork spirit and cooperation among them becoming higher (Avlonitis & Gounaris, 1997; Lai, 2003; Jaworski & Kohli, 1993 and Caruana, 1997).

To further elaborate how school market orientation improves teachers' teamwork, let's see how market orientation aids small organizations like schools to meet two of Rumelt's (1981) criteria for evaluating strategies: consistency and workability. Strategy consistency and workability are diminished in many schools due to low levels of formal planning, coordination, and control systems. If, within school, behaviour is consistently guided by norms geared toward satisfying parents, the result should be greater consistency in decision-making within and across functions. Parents' satisfaction norms should also improve inter-functional coordination in the implementation of strategies, resulting in greater strategy workability.

Policy implementation success

A significant number of studies claim that a market-oriented culture and behaviour generates new policy success (e.g. Deshpandé *et al.*, 1993; Slater & Narver, 1994). Although in primary schools, out-breaking innovations do not often happen, there are still many new policies that need to be implemented, for example, new language policy, new reading programmes, etc. By considering nearby schools, it can not only shorten the time for finding the best method, but also prevent unnecessary wastage of resources. Besides, since nearby schools are serving the same population of student and parents, and their needs and wants are very similar, insights like which ways are more effective and favoured by the parents could be drawn from looking at nearby schools in relation to the implementation of some policies.

Moreover, new policy success depends on the acceptance of the users and also the cooperation of the staff. Some principals regarded parental feedback as the backup of the new policy. For example, an interviewee recalled that when she decided to implement a new policy on the medium of instruction, she asked for a lot of opinions from parents to create a voice. As a result, she convinced her staff to execute the changing plan.

Other than convincing staff, having the consent and support of parents increases the smoothness of running new policy. An interviewee noted that if he executes a policy without considering the comments from parents, in the short term it will increase efficiency, but if parents find that it does not work after starting the project or policy, management at that time will never be easy. On the other hand, if mutual understanding and reorganization is made, although there is resistance at first, after it starts, it will become smoother. Compromise before execution is beneficial because parents will tend to be more cooperative.

Better reputation, retention and attraction for present and new parents

There has been an increasing number of factors that affect school policies and development. Parental opinion is the one which is gaining more and more attention. One reason is that if school policies and development match the needs and wants of the parents, both parties can cooperate to nurture their child with similar beliefs and methods. In contrast, if parents find that school policies and development totally mismatch their needs and wants, they may react by non-cooperation or even vote with their feet.

Mutual understanding and cooperation between schools and parents are important because expectations and perceived performance drive satisfaction. As pointed out earlier, before executing school policies, market-oriented schools are more likely to consult their parents, so obviously this procedure could help parents to create a much more realistic expectation; therefore there is more chance to make them satisfied. On the other hand, market orientation provides a school with a better understanding of both the satisfaction and dissatisfaction of parents, and by means of better management of parents' dissatisfaction, its negative effects on the school can be minimized. In addition, Hirschman (1970) argued that an organization is able to satisfy its customers via two feedback mechanisms: exit and voice. Exit implies that the customers stop buying the company's products or services, while voice is the customer complaints expressing dissatisfaction directly to the company. For the benefit of schools, it would be better to introduce "parental voice" in order to induce service development, and as a result prevent "exit" happening. Furthermore, both business practice and research (e.g. Andreassen, 1994) can indicate that if a complaining customer is satisfied by the response to the complaint, he/she becomes even more loyal after he has made his complaint.

In reality, parents' satisfaction through "word-of-mouth", in turn creates a good reputation for a school. In marketing, reputation of a product or service influences customers' purchasing decisions. In other words, parents choose one school over another because of good reputation. The basic mechanism is simple as follows. Attitudes and beliefs on specific schools are influenced by previous experience. People with previous experience will base their attitudes and beliefs on experienced service quality. People with little or no experience may base their attitudes and beliefs on reputation. In sum, market orientation can not only increase the retention of the present parents, but also attract new parents to their schools.

Competitive advantage

Schools with a clear quality improvement plan which match parental needs and is clearly understood by every staff member, in addition to having a relatively higher level of market orientation, are able to change and adapt faster than other organizations. This is because schools with a high level of market orientation continuously scrutinize their environment, not only to anticipate but also to shape the evolution of the environment in which they play. This implies that these schools are likely to seek and benefit from first-mover advantages in launching truly innovative policies. According to Burke (1984), competitive strength is an indication of the business unit's advantages or position in the market vis-à-vis major competitors and its ability to compete. Competitive strength captures the extent to which it stands out from the crowd. Dickson (1992), argued that organizations that are very good at implementing things (getting things done) have an inherent competitive advantage.

Lusch & Laczniak (1987) also support this argument and argue that organizations in more competitive environments may be influenced to be more responsive to the changing needs of the marketplace and thus be more market oriented. However, when a competitive environment is perceived as hostile, most schools respond by placing more emphasis on advertising themselves because a market orientation is harder to be instilled, compared to advertising. Compared to the interactive properties of market orientation which are concerned with customers' needs and wants, as well as taking action based on market information, advertising can be done fast but there is much one-way action. It is all about the announcement of the excellence of a school to their parents. It is seldom related to taking any action to change and improve a school with reference to parents' needs and wants. Compared to market orientation activities, advertising does not offer schools a source of sustainable competitive advantage because of the relative ease of copying other schools and mismatching of parents' needs and schools' effort.

To conclude the discussion of school market orientation effects, it should be noticed that only doing market orientation activities will not guarantee the survival of a school in the short term. This is because the closure of a school may be due to a combination of many reasons, for example the serious drop of a student population in an area, the serious competition between schools, the serious mismatching of parental needs and school policies, the bad reputation of a school, the bad performance of teaching and poor physical schoolhouse, etc. However, the positive effects of school market orientation could improve the esprit-de-corps of the teachers towards providing more quality work to respond to the higher parental expectations, the implementation of new policies, the mutual understanding of schools and parents, as well as the matching of school effort and parental needs. Siguaw *et al.* (1998) concluded that the gains of market orientation should be expected in the long term. By instilling market orientation into school management, it not only benefits the school by increasing its competitive strength, but also enhances its reputation and attraction for both present and new parents.

In the above, the positive effects of school market orientation were stated. However, before putting resources and effort into promoting it, practitioners who want to have successful implementation should first of all understand the barriers to as well as drivers of market-oriented development.

Barriers to and drivers of market orientation in primary schools

Many past studies (Kohli & Jaworski, 1993) culminated with a call for further research into the identification of additional barriers to market orientation. This study, therefore not only confirmed that a number of obstacles found in manufacturing and service industries also existed in primary schools, some unidentified barriers which are only present in primary schools were also discovered; see table 20.

Table 20 Summary of the drivers and barriers in school market orientation

Categories	Drivers in school market orientation	Barriers in school market orientation	Research based on manufacturing and service industries
Employees' attitude	Commitment of the front-line employees	Risk aversion; No sense of ownership; Limited power of front-line employees	Jaworski & Kohli (1993); Harris (1998); Avlonitis & Gounaris (1997)
		**Incompatible with educational goals;* **Contentment with the status quo;* **Unclear definition of customers;* **Misunderstanding of the concept*	
Organizational structure	Connectedness	Departmentalization	Selnes *et al.* (1996); Harris (2000); Matsuno *et al.* (2002)
		**Long establishment; *Teachers with long average teaching experience*	
System		Limited training procedures about market orientation	Wong *et al.* (1989); Ruekert (1992)
		Limited inter-functional co-ordination systems; unclear marketing objectives	Wong *et al.* (1989)
Organizational	**Open culture*	Obedience rather than market responsive	Harris (1998)

culture	Organizational communication emphasis; Constructive culture	The inertia breed of individual corporate cultures	Oakley (2002); Rousseau (1990); Messikomer (1987)
Management behaviour		The sheer difficulty in attempting to change traditional thinking	Wong *et al.* (1989)
	Participative and supportive leadership	Instrumental leadership; **The principal does the entire job of market orientation*	Harris & Ogbonna (2001)
	Top management place emphasis on market orientation		Jaworski & Kohli (1993)
		Misunderstanding of the concept **Confusing market orientation as advertising*	Ottesen & Grønhaug (2002)
	Prospector; pro-activeness, analysis and futurity **Sociable and ready for change character*	**Working lives dominated by operational issues*	Slater & Narver (1993); Morgan & Strong (1998)
Environment	Environmental turbulence		Davis (1991)

Italics with * denote the obstacles found in the present study.

Although in table 18, the factors affecting market orientation development in primary schools are in different categories, they are indeed complex and inter-related. The mechanism of how they affect the market orientation development in primary schools will be discussed in the following paragraphs.

Teachers' attitudes

Apart from the factors found from the previous studies (Risk aversion: Jaworski & Kohli, 1993; No sense of ownership: Harris, 1998; Limited power and commitment of front-line employees: Avlonitis & Gounaris, 1997), in this study, it was found that teachers may be content with the status quo, have an unclear definition of customers and find market orientation incompatible with educational goals as well as misunderstand the concept. All or some of the above reasons make them feel hostile towards school market orientation and as a result are unwilling to perform market-oriented activities.

Teachers' attitude to school market orientation was found to be highly related to the willingness of doing market-oriented activities. The next question is what factors affect their attitude. In Phase I of this study, it was found that if the average teaching experience of the teachers and the number of years of school operation are longer, the market orientation level of the school will be lower. And the religion of schools does influence the market orientation level of a school where the level of market orientation of teachers coming from non-Christian schools will be higher than those coming from Christian schools. The above findings show us that organization factors may affect individuals' attitude towards market orientation because obviously teachers coming from different types of schools will have different levels of market orientation. To test the above argument, in Phase II, the responses of the teachers within the same school were compared. Their responses appeared more or less the same. In other words, most teachers from high levels of market orientation schools behave in a higher market-oriented way, no matter his / her religion and teaching experience, and vice versa. This phenomenon supports the fact that organizational factors may be more dominant than personal factors like teaching experience and religion. The present study further found that organizational barriers like organizational structure, culture and system, as well as leadership management and stability of the schools were all crucial factors.

Organizational factors

The interview data also showed that the organizational barriers exist in other industries like departmentalization (Selnes *et al.,* 1996; Harris, 2000; Matsuno *et al.,* 2002); limited training procedures about market orientation (Wong *et al.*, 1989; Ruekert, 1992); limited inter-functional co-ordination systems (Wong *et al.,* 1989) can also be found in primary schools. It also appeared that open and constructive school culture which supports the multiple levels of communication can overcome the obedience tendency of the teachers and the over-focused department-oriented culture, as a result, encouraging them to be market responsive.

An organization, on the whole, can affect its staff members; but how? From the results of the interviews, it was found that the market orientation of teachers is heavily influenced by principals. As Church (1995) argued, the dyadic linkage between supervisor and subordinate is a powerful means of transmitting culture, information, practices, beliefs and attitudes within the organization.

Management beliefs and behaviour

It was found that some developmental barriers related to management beliefs and behaviour which exist in other industries can also be found in primary schools. They include the sheer difficulty in attempting to change traditional thinking (Wong *et al.*, 1989) and misunderstanding of the concepts (Ottesen & Grønhaug, 2002). More specifically, some factors mainly present in primary schools were identified in this study. They include the fact that some principals do the entire job of market orientation, they confuse market orientation as advertising and their working lives are dominated by operational issues. Evidence in this study also suggests that principals who are sociable and ready for change, pro-active and place emphasis on market orientation, and whose leadership is dominated by being participative and supportive would help their schools to become more market oriented.

Environmental turbulence

Finally, this study also proved that competitive environment and stability is positively related to high market orientation. This is supported by Davis (1991) who detected that perceived environmental turbulence is positively associated with market orientation since this perception will increase the person-in-charge's interest in reducing uncertainty and searching for ways to survive effectively.

To conclude the above, factors affecting how any organization behaves are never simple or easy to be understood. It is the same as understanding the interaction of different variables in relation to school market orientation development within primary schools. However, as we can see, most of the studies in the literature review about market orientation barriers described those barriers in an un-integrated and sporadic way. Certainly, it would be more helpful for the understanding of the real situation by merging different variables and structuring them into an inter-related network. After analyzing the data in this study, it was suggested that one way to understand the interaction between the components of factors in primary schools may be as follows: teachers' opinions, attitudes and beliefs on school market orientation are a major determinant of the level of market orientation, which are highly affected by the shared cultures of the organization and its structure as well as system. Crucially, in this study, there was evidence to show that the building of a culture of market orientation highly depends on principals' management as well as schools' stability.

Implications for school executives and researchers

For principals and school executives who are more inclined to practical applications of the findings and accept that market orientation can help the development of their schools, the result of this study will provide insights into what needs to be done to increase a school's level of market orientation. For those who do not have a clear understanding of the market orientation concept and do not know its possible positive effects, this study also provides resources and evidence for review and further discussion.

On the other hand, the list of barriers and drivers discovered in this study could also provide a good reference for those people who want to create a more suitable environment for market orientation development. However, while practitioners decide to implement an improvement plan, they should identify not only which factors restrict market orientation but also why these factors occur. The suggestion here is that practitioners should first of all review those issues which are believed to be restricting the school's market orientation development. Secondly, they should analyze each potential barrier not only in terms of what it inhibits but also in terms of why this occurs. Finally, they should design an improvement plan to tackle the hindrances.

Last, although the first measuring scale of market orientation in primary schools – the Ed MARKOR scale which was established in this study lacks a factor structure, the experiences gained from this study can still provide useful insights for further development of a better measuring scale for gauging market orientation in primary schools, as well as secondary schools.

Limitations of the present study and direction for further studies

This study is a modest but important beginning of a research stream. While this study has implications for both marketing practitioners and academics, like any other studies, caution should also be exercised in interpreting the results of this dissertation. The limitations of this study provide a number of different avenues for future research.

Application of other measuring scale for market orientation

Firstly, the theoretical scope of the phenomena in this dissertation is limited. This study relied on Kohli *et al.* (1993) to operationalize market orientation. The literature provides a variety of measures for market orientation (see, e.g. Narver & Slater, 1990), some of which should be employed in future research to validate the findings reported in this study.

Besides, some authors (Peters & Austin, 1985; Peters & Waterman, 1982) suggest that customer orientation is a more important component of market orientation than competitor orientation (especially true for the field of education). The suggestion above was supported by this study – there was an imbalance of effort on the part of parents and competitors in the school samples. Due to the reason suggested above, apart from the MARKOR scale, there are several different views and measuring scales that are useful for the understanding of the unique dynamics of primary schools, especially the theoretical framework and measuring scale developed by Narver & Slater (1990) because the three component factors in their scale are competitor-oriented, customer-oriented, and inter-functional coordination. The separation of competitor and customer factors would be very appropriate for the investigation of the market orientation in the primary school setting for future studies.

Designing a set of more precise questions for Ed MARKOR

Secondly, for the benefit of reference taking, Ed MARKOR heavily relied on the original version (Kohli *et al.* 1993), which had already been validated by different sectors and countries. This method favoured the beginning of inducing the concept – market orientation into a new sector. However, since the context of the original scale was quite different to the primary school setting, many modifications needed to be made. For example, concerning the scale items, revision of the scale items to reflect other stakeholders (e.g. the present quantitative study only surveyed teachers but not principals or non-teaching staff) may be a useful direction to consider. Moreover, it may be the case that specific items need to be modified to more accurately reflect the dispersion in the population (e.g. question 1: Teachers meet with parents at least once a year (other than parents' day) to find out what services they want; or question 11: We have interdepartmental meetings every three months (at least) to discuss the development of parental needs and opinions) because between once a year or every three months, there are so many different options. For schools to meet with parents once a year is very common in most Hong Kong schools. So it is not easy to distinguish between schools that are more market oriented and those which are not using these questions. On the other hand, the results of question 21 (Our school will not ignore changes in parents' service needs) and 27 (Parents' complaints will not fall on deaf ears in this school) showed that schools do take parents' needs and complaints into account. The scores were 3.99 and 3.89 respectively. However, this question seemed not to be clear enough to show the intensity of the actions in response to changes in parental needs and complaints. Therefore, even if they do just a little the response can be a high mark.

The above describes just part of the factors involved, and even if modifications have been made, it does not really guarantee that the scale gave a perfect response to the real situation of primary schools. One possible method to solve this problem would be to design a set of more precise questions for use in future studies.

Longitudinal research

Thirdly, since the data of this study is cross-sectional, this dissertation cannot provide much evidence for causal relationships. For example, whether the school wanted to have a better performance related to enrolment rate and so became more market oriented or because the level of market orientation of the school was already high, it therefore produced better performance? Or did was management behaviour the consequence or antecedent of market orientation? The above questions still have no answers. A stronger form of causal research should be attempted by longitudinal research designs.

Replicating this study by using other methods to investigate the barriers, drivers and effects of school market orientation

Due to the complex relationship of the school market orientation and the limited resources (time and money) of this study, in-depth interviews within four schools were used to investigate the possible effects and variables of school market orientation and development. Interviews were a good method for the present study because they can help the researcher more clearly understand the interactions within schools. Besides, due to the small scale, they were more manageable for the researcher. Moreover, the findings from in-depth interviews can also provide information for further study. Universities and governmental agencies with more resources are encouraged to carry out the study quantitatively and statistically, by using suitable questionnaires to gauge the possible barriers (for example, principal leadership and school culture) and effects (for example, commitment of staff and satisfaction of parents) and market orientation appearance, in turn, statistically analyzing their correlation. Precautions also need to be considered for this approach because schools may be reluctant to disclose data if they consider it sensitive or confidential. In addition, the response rate is also an innate problem.

Replicating this study in other cultural settings to see whether there are the same findings

Apart from the above, only respondents from one culture, i.e. primary schools in Hong Kong, were included in the study, which may limit the generalizability of the results to other cultures because funding, ownership, structure and system of schools, competitive status between schools, teachers' attitude towards competition and marketing are not the same in different societies. A study of market orientation in the educational environment under different cultural and social contexts would not only help to generalize the findings, but would also contribute to determining how differences in cultural and social contexts can influence the study results.

Furthermore, as argued in the introductory chapter, primary schools were the focus of this study because first and foremost, primary schools were attacked by the first wave of decreasing student population. Understanding the responses of teachers and principals in primary schools could provide some good references for secondary schools that may face the same problem several years later. In addition, academics and principals may also follow the trend to study the issues related to secondary school market orientation.

Concluding remarks

Based on the findings, principals of primary schools have an opportunity to improve their schools through their efforts to instil a market orientation. However, in the literature, although most scholars agree on the importance of market orientation, a number of authors have voiced their concerns over the appropriateness of market orientation in ensuring the success of an organization. For instance, Kaldor (1971) suggested that market orientation suppressed the creative abilities of an organization. Kaldor further argued that customers (parents in this study) do not always know what is needed or they may not be able to articulate their needs and expectations. An extreme example is the medical doctor-patient relationship, where the patient cannot specify the treatment. Of course it does not mean that the doctor is not addressing the needs and wants of the patient. In fact, parents are not always necessarily good sources of information about their needs. Some authors also argue that an over-reliance on customer feedback impacts negatively on the degree of product innovation (Christensen & Bower, 1996). Underlying their claim is the idea that frequently, customers do not know how their needs will evolve and how certain knowledge may impact the satisfaction of their needs. In addition, the ability of parents to verbalize what they need/want is limited by their knowledge levels. And this in turn may cause the equity problem between parents of different social-economical status. In fact, it has been recognized by many authors (e.g. Han *et al.*, 1998; Kohli & Jaworski, 1990) that being customer oriented should go far beyond simply listening to customers. It also involves an understanding of how the future needs of customers will evolve and of how the organization can satisfy them.

The ideas mentioned above provide some precautions for principals and teachers to pay attention to when applying market orientation concepts in schools. It is important that the successful implementation of any policies related to market orientation requires that schools strike the right balance between the rights of parents from different socio-economical status, the professional decisions of teachers / principals and parental needs, as well as the specific parental and general societal needs because although parents are significant external stakeholders, schools must also balance their demands with the needs of society. Obviously, when schools respond to parents, they may not be sufficiently responsive to society. In other words, parental satisfaction may be high, but the overall societal impact may be negative. For example, inclusive education is the concept of letting students with special learning needs study in ordinary schools. In Hong Kong, if not most, at least some parents in ordinary schools do not favour this policy. Should schools continue to carry out this policy by means of fairness and social justice or reject it according to parental favour? Such questions keep arising in the decision-making of the management of most schools in Hong Kong.

Nevertheless, in spite of the precautions, this research has value as an exploratory first step towards market orientation in primary schools. By discussing firstly, the influences of antecedent variables of market orientation (teachers' attitude to the concept which is strongly affected by school culture and principal leadership and moderated by environmental turbulence, and secondly, the possible effects of school market orientation by improving teachers' organizational commitment and teamwork, so enhancing service quality and policy implementation success, as a result, gaining competitive advantage and promoting reputation and parents' retention), as a result, it can not only provide a better understanding of school market orientation, but also more information and experiences for the reference of further studies.

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Market orientation Scale (MARKOR scale)

Appendix 1

	Strongly disagree —— Strongly agree				
Intelligence Generation	1	2	3	4	5
1. In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.					
2. Individuals from our manufacturing department interact directly with customers to learn how to serve them better.					
3. In this business unit, we do a lot of in-house market research.					
4. We are slow to detect changes in our customers' product preferences.					
5. We poll end users at least once a year to assess the quality of our products and services.					
6. We often talk with or survey those who can influence our end users' purchases (e.g. retailers, distributors).					
7. We collect industry information by informal means (e.g. lunch with industry friends, talks with trade partners).					
8. In our business unit, intelligence on our competitors is generated independently by several departments.					
9. We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation).					
10. We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers.					
Intelligence Dissemination	1	2	3	4	5
11. A lot of informal "hall talk" in this business unit concerns our competitors' tactics or strategies.					
12. We have interdepartmental meetings at least once a quarter to discuss market trends and development.					
13. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments.					
14. Our business unit periodically circulates documents (e.g. reports, newsletters) that provide information on our customers.					
15. When something important happens to a major customer of market, the whole business unit knows about it within a short period.					
16. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.					
17. There is minimal communication between marketing and manufacturing departments concerning market development.					
18. When one department finds out something important about competitors, it is slow to alert other departments.					
Responsiveness	1	2	3	4	5
19. It takes us forever to decide how to respond to our competitor's price changes.					
20. Principles of market segmentation drive new product development efforts in this business unit.					
21. For one reason or another we tend to ignore changes in our customer's product or service needs.					
22. We periodically review our product development efforts to ensure that they are in line with what customers want.					
23. Our business plans are driven more by technological advances than by market research.					
24. Several departments get together periodically to plan a response to changes taking place in our business environment.					
25. The product lines we sell depends more on internal politics than real market needs.					
26. If a major competitor was to launch an intensive campaign targeted at our customers, we would implement a response immediately.					
27. The activities of the different departments in this business unit are well coordinated.					
28. Customer complaints fall on deaf ears in this business unit.					
29. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.					
30. We are quick to respond to significant changes in our competitors' pricing structures.					
31. When we find out that customers are unhappy with the quality of our service, we take corrective action immediately.					
32. When we find that customers would like us to modify a product of service, the departments involved make concerned efforts to do so.					

The Narver and Slater's (1990) Construct for the measurement of Market Orientation

Customer Orientation	Customer commitment
	Create customer value
	Understand customer needs
	Customer satisfaction objectives
	Measure customer satisfaction
	After-sales service
Competitor Orientation	Salespeople share competitor information
	Respond rapidly to competitors' actions
	Top managers discuss competitors' strategies
	Target opportunities for competitive advantage
Inter-functional Coordination	Inter-functional customer calls
	Information shared among functions
	Functional integration in strategy
	All functions contribute to customer value
	Share resources with other business units
Long term horizon	Quarterly profits are primary objective
	Require rapid payback
	Positive margin in long term
Profit Emphasis	Profit performance measured market by market
	Top managers emphasize market performance
	All products must be profitable

GSOE RESEARCH ETHICS FORM

Ethical issues discussed and decision taken:

1) Researcher access

Researcher has a responsibility to be mindful of cultural, religious, gender, and other significant differences within the research population in the planning, conduct, and reporting of their research. Therefore, random selection of the data will be used.

In this study, the research samples are drawn from the school lists (By District) (2007/08) (Last updated: March 2008) which present in the official web site of Hong Kong Education Bureau. Simple random sampling is used in this research. Simple random sampling is defined as those in which (1) the probabilities of the selection are equal for all elements, and (2) sampling is done in one stage with elements of the sample selected independently of one another.

2) Information given to participants

A cover letter is used, introducing the researcher, the objectives of the research and the importance of the survey.

Participants will be offered a copy of the summary of research results if they complete and return the questionnaire (in quantitative stage) or participate the interviews (in qualitative study).

3) Right of participation and withdrawal

Subjects enter research projects voluntarily. They also have the right to withdraw from the study.

4) Informed consent

A consent letter will be asked to sign before participating in research.

5) Anonymity / confidentiality

To ensure anonymity, respondents will be promised that any identifying information will be destroyed after the data-analyzing stage. Besides, the identification of respondents is by code number rather than by name. No one would know which schools have been participated the study except the researcher and the school itself.

Collapse or combine variables to provide summary measures to mask what otherwise would be identifiable information.

6) Data collection

The duration of the interviews would not more than one hour to avoid over stress to the participants.

Honesty should characterize the relationship between researcher and participants. No deception will be in this study.

7) Data analysis

Steps will be taken to ensure the integrity of the data and the analysis. They include consulting with the dissertation supervisor. And cross check the quantitative results with the later qualitative study.

8) Data storage

The researcher will ensure that the data is kept securely and that the form of any publication, including publication on the Internet, does not directly or indirectly lead to a breach of agreed confidentially and anonymity.

9) Data Protection Act

Researcher must comply with the legal requirements in relation to the storage and use of personal data as set down by the Data Protection Act (1998) and any subsequent similar acts. In essence, people are entitled to know how and why their personal data is being stored, to what uses it is being put and to whom it may be made available. Researcher must have participants' permission to disclose personal information to third parties and are required to ensure that such parties are permitted to have access to the information. They are also required independently to confirm the identity of such persons and must keep a record of any disclosures. Disclosure may be written, electronic, verbal or any visual means.

The Data Protection Act also confers the right to private citizens to have access to any personal data that is stored in relation to them. Researchers seeking to exploit legal exclusions to these rights must have a clear justification fro so doing.

10) Responsibilities to colleagues / academic community

Researcher should attempt to report their findings to all relevant stakeholders, and should refrain from keeping secret or selectively communicating their findings

Researcher's report to the public should be written straightforwardly to communicate the practical significance for policy, including limits in effectiveness and in generalizability to situations, problems, and contexts. In writing for or communicating with non-researchers, educational researchers must take care not to misrepresent the practical or policy implications of their research or the research of others.

11) Reporting of research

Researcher should report research conceptions, procedures, results, and analyses accurately and sufficiently in detail to allow knowledgeable, trained researchers to understand and interpret them.

Researcher should communicate their findings and the practical significance of their research in clear, straightforward, and appropriate language to relevant research populations, institutional representatives, and other stakeholders.

All those, regardless of status, who have made substantive creative contribution to the generation of an intellectual product are entitled to be listed as authors of that product. Anyone listed as author must have given his/her consent to be so listed

Researcher should fully disclose the aims and sponsorship of their research, except where such disclosure would violate the usual tenets of confidentiality and anonymity.

University of
BRISTOL
Graduate school of Education
35 Berkeley Square
Bristol BS8 1JA
England

INVITATION LETTER SAMPLE

Dear principal,

Invitation for the participation in the research on

Information Management of External Stakeholders

I am currently carrying out an important survey about information management of parents and nearby schools in primary schools of Hong Kong, and would be very grateful if some of your teaching staffs would take part in the survey. **English and Mathematics teachers** in your schools are chosen to be the participants because of some statistical reasons. They only need to finish the questionnaires with 30 short multiple-choices questions which take about **10 minutes**.

It would be a very meaningful action to take part of this research because international and local studies provide much knowledge about information management of external stakeholders in business sector, but not in educational aspect. The research would not only a pioneering study in Hong Kong, but in the whole world. The collected data therefore would be very invaluable for further academic development. Hopefully, it would benefit not only the management of schools, but with its potential, benefit to all students, parents and teachers.

I understand that confidentiality and anonymity are vital principles in this exercise and I would pledge to strictly adhere to them: no names of the research participants and concerned schools will be disclosed in any report produced for this research without the express permission of the school. Only I will have access to the original data collected.

Time is indeed a very precious resource to all of you, so I am much indebted to you and your staffs for the kind assistance. It would really help me out. Please fill in the attached reply slip and fax it back **as soon as possible as the results are needed urgently**. I will then send you the correct number of questionnaires. As a token of appreciation, I will offer every responding school a **free copy** of the simplified resulting report. Should you have enquires, please call xxxxxxxxx.

I hope I can look forward to your participation of the research. Thank you for your selfless assistance.

Yours sincerely,

Bruce, Wong Yuet Ming
Project Director

Reply Slip

(Fax no. xxxxxxx)

SCOPE
LG/F, Academic Exchange Building,
City University of Hong Kong,
Tat Chee Avenue,
Kowloon
(Attn: WONG Yuet-ming, Bruce)

<u>Invitation for the participation in the research on</u>
<u>Information Management of External Stakeholders in Primary Schools of Hong Kong</u>

1) Our staffs *would / would not like to participate the research mentioned above.

2) I confirm that *me / the English Panel Chairperson / the Mathematics Chairperson,

name: ________________________________will in charge of the event.

3) There are _________________ (nos.) Mathematics teachers in our school.

4) There are _________________ (nos.) English teachers in our school.

Signature:____

Name of the principal: ____

Name of the school: ____

Date: ____

*please circle the appropriate options

University of BRISTOL
Graduate school of Education
35 Berkeley Square
Bristol BS8 1JA

COVER LETTER SAMPLE

Dear English Panel Chairlady,

The research on Information Management of External Stakeholders

Thank you for your consent to taking part in this research. It would be a very meaningful action because international and local studies provide much knowledge about information management of external stakeholders in business sector, but not in educational aspect. Therefore, the research would not only a pioneering study in Hong Kong, but in the whole world. The collected data therefore would be very invaluable for further academic development. I much appreciate the demands it makes on your time, but I am sure that the results will be of benefit to the field of education as a whole.

As I mentioned earlier in the previous invitation letter, **English teachers** in your schools are chosen to be the participants because of some statistical reasons. They only need to finish the questionnaires with 30 short multiple-choices questions which take about **10 minutes**.

The handling procedure of the questionnaires is as follow. Firstly, every participant should receive a questionnaire and an envelope. Secondly, every participant should finish their own questionnaire separately. And the completed questionnaire should be put into the attached envelope individually by every participant. This procedure is to ensure the anonymity. Thirdly, the filled envelopes should be collected and put into the stamped return envelope I enclosed for your reply.

I understand that confidentiality is vital principles in this exercise, therefore no names of the research participants and concerned schools will be disclosed in any report produced for this research without the express permission of the school. Only I will have access to the original data collected. Should you have enquires, please call xxxxxxxxx. And it would be much appreciated if the completed questionnaires could be return **on or before 15 April 2008**.

I hope I can look forward to your participation of the research. Thank you for your selfless assistance.

Yours sincerely,

____

Bruce, Wong Yuet Ming
Project Director

Appendix 6

University of BRISTOL
Graduate school of Education
35 Berkeley Square
Bristol BS8 1JA
http://www.bristol.ac.uk/Depts/Education

Dear Principal,

Reminder for the return of reply slip on the research of Information Management of External Stakeholders in Hong Kong Primary Schools

Last week an invitation letter asking for participating the research of Market Orientation in subsidized primary schools in Hong Kong was faxed to you.

If you have completed the reply slip already please accept our sincere thanks. If not, could you please return it today? Because it was sent to a small representative sample, it is most important that your views are included in the study if we are to represent the actual situation of schools in Hong Kong.

If by some chance you did not receive the invitation letter or have mislaid it please call me on xxxxxxxxx and I will send you another copy today.

Yours sincerely,

Bruce, Wong Yuet Ming
Project Director

Appendix 7

University of BRISTOL
Graduate school of Education
35 Berkeley Square
Bristol BS8 1JA
http://www.bristol.ac.uk/Depts/Education

Dear Principal,

Reminder for the return of survey on the research of Information Management of External Stakeholders in Hong Kong Primary Schools

Last week a package of questionnaires on the research of Market Orientation in subsidized primary schools in Hong Kong was mailed to you.

If your school members have completed the questionnaires already please accept our sincere thanks. If not, could you please return it today? Because it was sent to a small representative sample, it is most important that your views are included in the study if we are to represent the actual situation of schools in Hong Kong.

We recognize how busy your schedule must be. Like many of us do when we are busy, you have put the questionnaire to one side and forgotten it. If by some chance you did not receive the questionnaire or have mislaid it please call me on xxxxxxxxxx and I will send you another copy today.

Thank you very much for your assistance, wholeheartedly.

Yours sincerely,

Bruce, Wong Yuet Ming
Project Director

E-mail for asking the permission of using / modifying the MARKOR scale

Dear Professor Kohli,

I am a doctoral student of the University of Bristol (England). My study interest is to investigate methods for school improvement. In the last four years of study, evidences show me that there are a strong positive relationship between market orientation and organizational performance. Therefore, I choose market orientation in schools as the focus of my dissertation.

The main objectives of the study are: Firstly, to measure the degree of market orientation in the subsidized primary schools; secondly, to find out the consequences of market orientation in schools; finally, to identify the barriers and drivers of marketing orientation in schools.

Your researches and publications make a real difference in the world. And I would like to base on your valuable findings and extend its potential to the educational sector.

I am planning to use the MARKOR scale (developed by you and professor Jaworski and Kumar) as an instrument to measure the level of market orientation in schools. Since MARKOR scale was developed and widely used in business sectors, some refinements are needed when it is used in school setting. Therefore, I would like to ask: 1) May I use / modify the MARRKOR scale (the result will be published in my dissertation, hopefully, some relevant journals with acknowledgement of the authors). 2) Who should I contact? 3) What should be next?

Time is indeed a very precious resource to you, so I am much indebted to you for your kind assistance.

Reply received on February 14, 2008

Dear Bruce,

Thank you for your message and kind words.
I have no objection to your modifying the scale. I am not sure whether you need permission to modify the scale, but you could check with the American Marketing Association (Chicago). If convenient, please let me know what you learn.

All the best to you!

Ajay

The research on information management of parents and nearby schools in primary schools of Hong Kong

1) It only takes you about **5 minutes** to finish the questionnaire.

2) Please just give the first impression that comes into your mind by ticking a box for each statement to show the extent to which you agree with it.

3) I understand that confidentiality is vital principles in this exercise and I would pledge to strictly adhere to them: no names of the research participants will be disclosed.

4) Time is indeed a very precious resource to all of you, so I am much indebted to you and your staffs for the kind assistance.

	Strongly disagree	----------			Strongly agree
Surrounding Information Formation	1	2	3	4	5
1. Teachers meet with parents at least once a year (other than parents' day) to find out what services they want.					
2. Teachers interact directly with parents to find out how to serve their needs better.					
3. Most of our teachers are fast to detect changes in parents' needs and preferences.					
4. Our school management will survey parents at least once a year to collect their comments on our school.					
5. Our school assigns a lot of resources to collect information from parents.					
6. Our school assigns a lot of resources to collect information from nearby schools.					
7. Our school collects information about parents by many informal means.					
8. Information on the schools in the same region is produced independently by several persons with different rankings.					
9. Our school is fast to detect changes in nearby schools.					
Space for any comments you have on the above					
Surrounding Information Dissemination	1	2	3	4	5
10. A lot of informal conversations between teachers concern the strategies of nearby schools.					
11. We have interdepartmental meetings every three months (at least) to discuss the development of parental needs and opinions.					
12. We have interdepartmental meetings every three months (at least) to discuss the information and strategies of nearby schools					
13. The principal in our school spends time discussing parents' future needs with teachers.					
14. Our school circulates documents (e.g. reports, newsletters) that provide information on our parents at least once a month.					
15. When something important happens to one or some of our parents, most of the teachers know about it within a short period.					
16. Data concerning parental satisfaction is distributed to most of the teaching and non-teaching staff on a regular basis.					
17. There is a lot of communication between the principal and teachers concerning the change in parental needs.					

18. When the principal or one of the teachers finds out something important about nearby schools, he or she is fast to alert others.					
Space for any comments you have on the above					
	Strongly disagree	———			Strongly agree
Responsiveness	1	2	3	4	5
19. It takes our school only a short period of time to decide how to respond to nearby schools' changes.					
20. We put much effort into providing new services in order to build school characteristics to make it different from other schools.					
21. Our school will not ignore changes in parents' service needs.					
22. We periodically review our policies and performances to ensure that they are in line with what parents want.					
23. Our school plans are driven more by the response to parental needs than by the school's own needs.					
24. Our school plans are driven more by responses to the changes of nearby schools than by the school's own needs.					
25. Several departments get together periodically to plan a response to changes taking place in parental needs.					
26. If a nearby school was to launch an intensive campaign targeted at our parents, we would implement a response immediately.					
27. Parents' complaints will not fall on deaf ears in this school.					
28. We are quick to respond to significant changes in nearby schools' actions.					
29. When we find out that parents are unhappy with our policies and performances, we take corrective action immediately.					
30. When we find out that parents would like us to modify a policy, teachers involved make planned and combined efforts to do so					
Space for any comments you have on the above					

Respondents' particulars:

Age: ______________________________

Year of teaching: ______________________________

Christian or Non Christian (Please circle the appropriate one)

- END -

Surrounding information management[4] (SIM) in educational organizations

	Strongly disagree -------- Strongly agree				
Surrounding Information formation[6]	1	2	3	4	5
1. Teachers[7] meet with parents at least once a year (other than parents' day) to find out what services they want.					
2. Teachers interact directly with parents to find out[8] how to serve their needs better.					
3. Most of our teachers[9] are slow to detect changes in parents' needs and preferences.					
4. Our school management[10] will survey [11]parents at least once a year to collect their comments to our school.					
5. Our school assigns a lot of resources to collect the information from parents.					
6. Our school assigns a lot of resources to collect the information from nearby schools.[12]					
7. Our school [13]collects information about parents by many informal means.					
8. Information on the schools in the same region is produced independently by several persons with different rankings.					
9. Our school is slow to detect changes in nearby schools.[14]					
Space for any comments you have on the above					
Surrounding Information Dissemination	1	2	3	4	5
10. A lot of informal conversations[15] between teachers concerns the strategies of nearby schools.					
11. We have interdepartmental meetings every three months (at least) to discuss the development of parental needs and opinions.					
12. We have interdepartmental meetings every three months (at least) to discuss the information and strategies of nearby schools[16].					
13. The principal[17] in our school spends time discussing parents' future needs with teachers.					
14. Our school circulates documents (e.g. reports, newsletters) that provide information on our parents at least once a month[18].					
15. When something important happens to one or some of our parents, most of the teachers know about it within a short period.					
16. Data concerning parental satisfaction are distributed to most of the teaching and non-teaching staffs [19]on a regular basis.					
17. There is very little[20] communication between the principal and teachers concerning the change of parental needs[21].					

---

4 "Market orientation" is replaced by "Surrounding information management". It is because most of the pilot test respondents had wrong impression in the term market orientation. Most of them relate it with promotion only but not the handling of customers' information. And this give them very bad feeling. In fact, market orientation is mainly concerned about the management of information.
5 It would be more easy to understand
6 Information Formation is more easy to understand than Intelligence generation (people will misunderstand the term intelligence)
7 "We" is replaced by teachers
8 "Find out" rather than "learn"
9 "We" is replaced by "most of the teachers"
10 "We" is replaced by "our school management"
11 "Survey" rather than "poll"
12 Question 6 is divided into two questions and "market research" is changed into information from parents and schools in the same region respectively.
13 "We" is replaced by "our school"
14 Question 10 is deleted because it is not really happen in primary school
15 "hall talk" is replaced by "conversations"
16 Question 12 is divided into two questions
17 Marketing in charge is deleted
18 "periodically" is replaced by "once a month at least"
19 "The whole school" is replaced by "teaching and non-teaching staffs"
20 "Minimal" is replaced by "very little"
21 "market development" is replaced by "parental needs"

18. When the principal or one of the teachers finds out something important about nearby schools, he or she is slow to alert others.					
Space for any comments you have on the above					
	Strongly disagree ——— Strongly agree[22]				
Responsiveness	1	2	3	4	5
19. It takes our school very long period of time to decide how to respond to the changes of nearby schools.[23]					
20. We pay much effort to provide new services in order to make it different from other schools.[24]					
21. Our school[25] tends to ignore changes in parents' services needs.					
22. We periodically review our policies and performances[26] to ensure that they are in line with what parents want.					
23. Our school plans are driven more by the school's own needs than by the response of parental needs[27].					
24. Our school plans are driven more by the school's own needs than by response of the changes of nearby schools.					
25. Several departments get together periodically to plan a response to changes taking place in parental needs[28].					
26. If a nearby school[29] was to launch an intensive campaign targeted at our parents, we would implement a response immediately.					
27. Parents complaints fall on deaf ears in this school.					
28. We are quick to respond to significant changes in nearby schools' actions.					
29. When we find out that parents are unhappy with our policies and performances[30], we take corrective action immediately.					
30. When we find that parents would like us to modify a policy[31], teachers involved make planned and combined efforts to do so.					
Space for any comments you have on the above					

- END -

[22] It would be more easy to understand
[23] "us" is replaced by "our school", "forever" is replaced by "very long period of time"
[24] Changing the order of the whole sentence
[25] The sentence is shortened
[26] "Service development efforts" is replaced by policies and performances
[27] Question 24 is divided into two questions
[28] "our professional environment" is replaced by parental needs
[29] "competitor" is replaced by nearby school
[30] For most of the teachers, they find that the term "services" is very negative to describe their job, therefore, it change to the policies and performances
[31] "service" is replaced by "policy"
*Many pilot test participants find that the last part of the questionnaire – gathering the information of which promotion activities had been used, will misdirect them to think that my intention in this study is on the side of promotion. Therefore, I decided to delete them.

Profiles of organizational and teacher characteristics of the samples

1. Characteristics of the 44 sampled schools

School	Religion of the school	Primary 1 Enrolment rate	No. of teacher	% of teachers with more than 10 years experience	Year of the school operate
1	Non Christian	High	36 - 40	30 - 35	10 - 15
2	Non Christian	High	36 - 40	60 - 65	10 - 15
3	Non Christian	High	20 - 25	50 -55	0 - 5
4	Non Christian	High	56 - 60	70 - 75	20 - 25
5	Christian	Low	20 - 25	50 - 55	30 - 35
6	Christian	High	26 - 30	36 - 40	6 -10
7	Non Christian	High	50 - 55	26 - 30	6 -10
8	Non Christian	High	40 - 45	46 - 50	20 - 25
9	Christian	High	36 - 40	66 -70	20 - 25
10	Non Christian	Low	26 - 30	36 - 40	6 -10
11	Non Christian	Low	26 - 30	76 - 80	6 -10
12	Christian	High	36 - 40	46 - 50	6 -10
13	Non Christian	High	46 - 50	46 - 50	40 -45
14	Christian	Low	30 - 35	90 - 95	20 - 25
15	Christian	High	30 - 35	30 - 35	40 -45
16	Non Christian	High	36 - 40	26 - 30	20 - 25
17	Non Christian	High	20 - 25	30 - 35	30 -35
18	Non Christian	High	30 - 35	30 - 35	20 - 25
19	Christian	Low	20 - 25	40 - 45	20 - 25
20	Christian	High	30 - 35	40 - 45	16 - 20
21	Non Christian	Low	16 - 20	30 - 35	10 - 15
22	Non Christian	Low	26 - 30	46 - 50	6 -10
23	Christian	High	36 - 40	50 - 55	16 - 20
24	Non Christian	Low	20 - 25	70 - 75	26 - 30
25	Non Christian	High	26 - 30	66 - 70	40 -45
26	Non Christian	Low	20 - 25	56 - 60	20 - 25
27	Christian	High	26 - 30	60 - 65	More than 50
28	Christian	High	30 - 35	50 - 55	30 -35
29	Non Christian	Low	20 - 25	50 - 55	16 - 20
30	Non Christian	High	46 - 50	60 - 65	26 - 30
31	Christian	High	30 - 35	70 - 75	30 -35

32	Non Christian	Low	26 - 30	70 - 75	More than 50
33	Christian	High	36 - 40	60 - 65	More than 50
34	Christian	Low	26 - 30	70 - 75	16 - 20
35	Non Christian	High	30 - 35	60 - 65	20 - 25
36	Christian	High	30 - 35	70 - 75	16 - 20
37	Non Christian	High	30 - 35	66 - 70	40 -45
38	Christian	Low	26 - 30	66 - 70	30 -35
39	Non Christian	Low	30 - 35	66 - 70	20 - 25
40	Non Christian	High	50 - 55	70 - 75	More than 50
41	Christian	High	26 - 30	80 - 85	16 - 20
42	Non Christian	Low	30 - 35	86 - 90	20 - 25
43	Non Christian	Low	36 - 40	86 - 90	10 - 15
44	Christian	Low	20 -25	86 - 90	16 - 20

2. Summary of the characteristics of the 44 sampled schools

Christian schools	18
Non Christian schools	26
Schools with high Primary 1 Enrolment rate	27
Schools with low Primary 1 Enrolment rate	17
Average No. of teacher	32
Average year of school operation	26

3. Characteristics of the teacher samples

Average age	35
Average years of teaching	18
No. of English teachers	262
No. of Mathematics teachers	276
No. of Christian teachers	299
No. of non Christian teachers	239

Correlation of the items in Ed MARKOR

		Q1	Q2	Q3	Q4	Q5	Q6
Q1	Pearson Correlation	1.000	.463***	-.120**	.227***	.198***	.123**
	Sig. (2-tailed)	.	.000	.005	.000	.000	.004
Q2	Pearson Correlation	.463***	1.000	-.024	.221 ***	.265***	.178***
	Sig. (2-tailed)	.000	.	.586	.000	.000	.000
Q3	Pearson Correlation	-.120**	-.024	1.000	.059	.280***	.061
	Sig. (2-tailed)	.005	.586	.	.173	.000	.159
Q4	Pearson Correlation	.227***	.221***	.059	1.000	.248***	.053
	Sig. (2-tailed)	.000	.000	.173	.	.000	.218
Q5	Pearson Correlation	.198***	.265***	.280***	.248***	1.000	.356***
	Sig. (2-tailed)	.000	.000	.000	.000	.	.000
Q6	Pearson Correlation	.123**	.178***	.061	.053	.356***	1.000
	Sig. (2-tailed)	.004	.000	.159	.218	.000	.
Q7	Pearson Correlation	-.074	.036	.088*	-.062	.222***	.263***
	Sig. (2-tailed)	.086	.404	.042	.151	.000	.000
Q8	Pearson Correlation	.010	.113**	-.153***	.147***	.110*	.211***
	Sig. (2-tailed)	.813	.009	.000	.001	.011	.000
Q9	Pearson Correlation	-.125**	.190***	.321***	-.039	.213***	.212***
	Sig. (2-tailed)	.004	.000	.000	.372	.000	.000
Q10	Pearson Correlation	.104*	.127**	.107*	.069	.360***	.361***
	Sig. (2-tailed)	.015	.003	.013	.110	.000	.000
Q11	Pearson Correlation	.077	-.013	.176***	-.026	.247***	.186***
	Sig. (2-tailed)	.075	.766	.000	.540	.000	.000
Q12	Pearson Correlation	.143***	.154***	.006	.110*	.243***	.337***
	Sig. (2-tailed)	.001	.000	.888	.011	.000	.000
Q13	Pearson Correlation	.106*	.041	.139**	.136**	.419***	.287***
	Sig. (2-tailed)	.014	.340	.001	.002	.000	.000
Q14	Pearson Correlation	.101*	-.005	.032	-.005	.109*	.388***
	Sig. (2-tailed)	.019	.913	.458	.905	.011	.000
Q15	Pearson Correlation	.129**	-.009	.049	.034	.140**	-.045
	Sig. (2-tailed)	.003	.826	.257	.434	.001	.297
Q16	Pearson Correlation	.140**	.094*	-.049	.115**	.197***	.201***
	Sig. (2-tailed)	.001	.030	.256	.007	.000	.000
Q17	Pearson Correlation	-.026	.106*	.230***	-.073	.234***	.164***
	Sig. (2-tailed)	.549	.014	.000	.091	.000	.000
	N	538	538	538	538	538	538

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).
***. Correlation is significant at the 0.001 level (2-tailed).

		Q1	Q2	Q3	Q4	Q5	Q6
Q18	Pearson Correlation	-.176***	-.056	.206***	-.089*	.108*	.043
	Sig. (2-tailed)	.000	.193	.000	.039	.012	.315
Q19	Pearson Correlation	-.077	.068	.099*	.020	.116**	-.019
	Sig. (2-tailed)	.074	.113	.022	.643	.007	.656
Q20	Pearson Correlation	-.002	.020	.002	.063	-.043	-.118**
	Sig. (2-tailed)	.956	.646	.964	.143	.319	.006
Q21	Pearson Correlation	.113**	.137**	.147***	.000	.085*	.096*
	Sig. (2-tailed)	.009	.001	.001	.996	.049	.026
Q22	Pearson Correlation	.155***	.135**	.125**	.245***	.107*	.022
	Sig. (2-tailed)	.000	.002	.004	.000	.013	.613
Q23	Pearson Correlation	.112**	-.022	-.022	.049	.059	.018
	Sig. (2-tailed)	.009	.606	.614	.258	.171	.673
Q24	Pearson Correlation	-.010	-.008	-.007	.075	.192***	.141**
	Sig. (2-tailed)	.814	.847	.868	.081	.000	.001
Q25	Pearson Correlation	.131**	.096*	.156***	.195***	.406***	.258***
	Sig. (2-tailed)	.002	.026	.000	.000	.000	.000
Q26	Pearson Correlation	-.209***	-.161***	.127**	-.008	.052	.253***
	Sig. (2-tailed)	.000	.000	.003	.859	.229	.000
Q27	Pearson Correlation	-.113**	-.078	.216***	.056	-.001	.134**
	Sig. (2-tailed)	.009	.072	.000	.193	.976	.002
Q28	Pearson Correlation	.070	.099*	.145***	.128**	.234***	.443***
	Sig. (2-tailed)	.105	.021	.001	.003	.000	.000
Q29	Pearson Correlation	.165***	-.050	.125**	.091*	.071	.019
	Sig. (2-tailed)	.000	.246	.004	.035	.101	.657
Q30	Pearson Correlation	.196***	.043	.181***	.182***	.260***	.122**
	Sig. (2-tailed)	.000	.314	.000	.000	.000	.004
	N	538	538	538	538	538	538

		Q7	Q8	Q9	Q10	Q11	Q12
Q1	Pearson Correlation	-.074	.010	-.125**	.104*	.077	.143***
	Sig. (2-tailed)	.086	.813	.004	.015	.075	.001
Q2	Pearson Correlation	.036	.113**	.190***	.127**	-.013	.154***
	Sig. (2-tailed)	.404	.009	.000	.003	.766	.000
Q3	Pearson Correlation	.088*	-.153***	.321***	.107**	.176***	.006
	Sig. (2-tailed)	.042	.000	.000	.013	.000	.888
Q4	Pearson Correlation	-.062	.147***	-.039	.069	-.026	.110*
	Sig. (2-tailed)	.151	.001	.372	.110	.540	.011
Q5	Pearson Correlation	.222***	.110*	.213***	.360***	.247***	.243***
	Sig. (2-tailed)	.000	.011	.000	.000	.000	.000
Q6	Pearson Correlation	.263***	.211***	.212***	.361***	.186***	.337***
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
Q7	Pearson Correlation	1.000	.116***	.084	.280***	.213***	.246***
	Sig. (2-tailed)	.	.007	.052	.000	.000	.000
Q8	Pearson Correlation	.116**	1.000	.272***	.272***	-.118**	.171***
	Sig. (2-tailed)	.007	.	.000	.000	.006	.000
Q9	Pearson Correlation	.084	.272***	1.000	.177***	.072	.152***
	Sig. (2-tailed)	.052	.000	.	.000	.095	.000
Q10	Pearson Correlation	.280***	.272***	.177***	1.000	.299***	.388***
	Sig. (2-tailed)	.000	.000	.000	.	.000	.000
Q11	Pearson Correlation	.213***	-.118**	.072	.299***	1.000	.390***
	Sig. (2-tailed)	.000	.006	.095	.000	.	.000
Q12	Pearson Correlation	.246***	.171***	.152***	.388***	.390***	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	..
Q13	Pearson Correlation	.397***	.119**	.025	.249***	.302***	.257***
	Sig. (2-tailed)	.000	.006	.556	.000	.000	.000
Q14	Pearson Correlation	.255***	.072	.024	.286***	.317***	.328***
	Sig. (2-tailed)	.000	.096	.571	.000	.000	.000
Q15	Pearson Correlation	.052	-.030	.020	.045	.247***	.051
	Sig. (2-tailed)	.231	.494	.650	.300	.000	.234
Q16	Pearson Correlation	.300***	.310***	.035	.217***	.166***	.341***
	Sig. (2-tailed)	.000	.000	.419	.000	.000	.000
Q17	Pearson Correlation	.058	-.002	.366***	.104*	.152***	.034
	Sig. (2-tailed)	.177	.960	.000	.016	.000	.431
	N	538	538	538	538	538	538

		Q7	Q8	Q9	Q10	Q11	Q12
Q18	Pearson Correlation	-.085*	.118**	.261***	-.123**	.041	-.121 **
	Sig. (2-tailed)	.050	.006	.000	.004	.348	.005
Q19	Pearson Correlation	.050	.122**	.317***	-.179***	.002	-.069
	Sig. (2-tailed)	.245	.005	.000	.000	.971	.111
Q20	Pearson Correlation	.091*	-.114**	-.131**	-.018	.228***	-.022
	Sig. (2-tailed)	.036	.008	.002	.675	.000	.618
Q21	Pearson Correlation	.062	-.147***	.076	.001	.070	.028
	Sig. (2-tailed)	.148	.001	.079	.979	.105	.519
Q22	Pearson Correlation	.152***	-.051	.065	.067	.238***	.251 ***
	Sig. (2-tailed)	.000	.235	.132	.121	.000	.000
Q23	Pearson Correlation	-.200***	-.202***	.004	-.041	.134**	.066
	Sig. (2-tailed)	.000	.000	.920	.345	.002	.129
Q24	Pearson Correlation	-.139**	.059	.065	.207***	-.085*	.247***
	Sig. (2-tailed)	.001	.174	.134	.000	.048	.000
Q25	Pearson Correlation	.226*	.081	-.023	.250***	.233***	.253***
	Sig. (2-tailed)	.000	.061	.599	.000	.000	.000
Q26	Pearson Correlation	.155***	.191 ***	.111**	.161***	.161***	.146***
	Sig. (2-tailed)	.000	.000	.010	.000	.000	.001
Q27	Pearson Correlation	.101*	-.103*	.083	-.103*	.010	-.093*
	Sig. (2-tailed)	.019	.017	.055	.016	.822	.032
Q28	Pearson Correlation	.147***	.205***	.202***	.261***	.106*	.239***
	Sig. (2-tailM)	.001	.000	.000	.000	.014	.000
Q29	Pearson Correlation	-.062	-.232***	-.113**	-.030	.202***	.039
	Sig. (2-tailed)	.152	.000	.008	.487	.000	.367
Q30	Pearson Correlation	-.044	-.189***	-.009	.036	.198***	.136**
	Sig. (2-tailed)	.313	.000	.844	.403	.000	.002
	N	538	538	538	538	538	538

		Q13	Q14	Q15	Q16	Q17	Q18
Q1	Pearson Correlation	.106*	.101 *	.129**	.140**	-.026	-.176***
	Sig. (2-tailed)	.014	.019	.003	.001	.549	.000
Q2	Pearson Correlation	.041	-.005	-.009	.094*	.106*	-.056
	Sig. (2-tailed)	.340	.913	.826	.030	.014	.193
Q3	Pearson Correlation	.139**	.032	.049	-.049	.230***	.206***
	Sig. (2-tailed)	.001	.458	.257	.256	.000	.000
Q4	Pearson Correlation	.136**	-.005	.034	.115**	-.073	-.089*
	Sig. (2-tailed)	.002	.905	.434	.007	.091	.039
Q5	Pearson Correlation	.419***	.109*	.140**	.197***	.234***	.108*
	Sig. (2-tailed)	.000	.011	.001	.000	.000	.012
Q6	Pearson Correlation	.287***	.388***	-.045	.201***	.164***	.043
	Sig. (2-tailed)	.000	.000	.297	.000	.000	.315
Q7	Pearson Correlation	.397***	.255***	.052	.300***	.058	-.085*
	Sig. (2-tailed)	.000	.000	.231	.000	.177	.050
Q8	Pearson Correlation	.119**	.072	-.030	.310***	-.002	.118*
	Sig. (2-tailed)	.006	.096	.494	.000	.960	.006
Q9	Pearson Correlation	.025	.024	.020	.035	.366***	.261***
	Sig. (2-tailed)	.556	.571	.650	.419	.000	.000
Q10	Pearson Correlation	.249***	.286*	.045	.217***	.104*	-.123**
	Sig. (2-tailed)	.000	.000	.300	.000	.016	.004
Q11	Pearson Correlation	.302***	.317***	.247***	.166***	.152***	.041
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.348
Q12	Pearson Correlation	.257***	.328***	.051	.341***	.034	-.121**
	Sig. (2-tailed)	.000	.000	.234	.000	.431	.005
Q13	Pearson Correlation	1.000	.344***	.079	.392***	.241***	.037
	Sig. (2-tailed)	.	.000	.065	.000	.000	.390
Q14	Pearson Correlation	.344***	1.000	.056	.429***	.010	-.074
	Sig. (2-tailed)	.000	.	.196	.000	.819	.086
Q15	Pearson Correlation	.079	.056	1.000	.146***	.081	.048
	Sig. (2-tailed)	.065	.196	.	.001	.060	.264
Q16	Pearson Correlation	.392***	.429***	.146***	1.000	.077	-.157***
	Sig. (2-tailed)	.000	.000	.001	.	.075	.000
Q17	Pearson Correlation	.241***	.010	.081	.077	1.000	.173***
	Sig. (2-tailed)	.000	.819	.060	.075	.	.000
	N	538	538	538	538	538	538

		Q13	Q14	Q15	Q16	Q17	Q18
Q18	Pearson Correlation	.037	-.074	.048	-.157***	.173***	1.000
	5ig. (2-tailed)	.390	.086	.264	.000	.000	
Q19	Pearson Correlation	.206***	-.021	.103*	-.012	.193***	.457***
	5ig. (2-tailed)	.000	.633	.016	.789	.000	.000
Q20	Pearson Correlation	.041	-.013	.409***	.103*	-.013	-.039
	5ig. (2-tailed)	.344	.764	.000	.016	.761	.369
Q21	Pearson Correlation	.027	.002	.112**	.022	.385***	-.028
	5ig. (2-tailed)	.530	.969	.009	.606	.000	.518
Q22	Pearson Correlation	.336***	.268***	.165***	.277***	.290***	-.096*
	5ig. (2-tailed)	.000	.000	.000	.000	.000	.026
Q23	Pearson Correlation	-.173***	-.085*	.244***	-.055	.079	.009
	5ig. (2-tailed)	.000	.049	.000	.203	.066	.841
	N	538	538	538	538	538	538
Q24	Pearson Correlation	-.006	.044	-.057	.117**	-.038	-.033
	5ig. (2-tailed)	.885	.305	.183	.007	.378	.441
Q25	Pearson Correlation	.414***	.273***	.295***	.461***	.176***	-.134**
	5ig. (2-tailed)	.000	.000	.000	.000	.000	.002
Q26	Pearson Correlation	.146***	.320***	-.014	.271***	.166***	.141 **
	5ig. (2-tailed)	.001	.000	.754	.000	.000	.001
Q27	Pearson Correlation	.045	.204***	.220***	.112**	.143***	.193***
	5ig. (2-tailed)	.303	.000	.000	.009	.001	.000
Q28	Pearson Correlation	.142***	.249***	.103*	.257***	.259***	.021
	5ig. (2-tailed)	.001	.000	.017	.000	.000	.624
Q29	Pearson Correlation	.005	.050	.370***	.097*	.136**	.043
	5ig. (2-tailed)	.909	.250	.000	.025	.002	.315
Q30	Pearson Correlation	.149***	.095*	.280***	.109*	.187***	.069
	5ig. (2-tailed)	.001	.027	.000	.012	.000	.108
	N	538	538	538	538	538	538

		Q19	Q20	Q21	Q22	Q23	Q24
Q1	Pearson Correlation	-.077	-.002	.113**	.155***	.112**	-.010
	Sig. (2-tailed)	.074	.956	.009	.000	.009	.814
Q2	Pearson Correlation	.068	.020	.137**	.135**	-.022	-.008
	Sig. (2-tailed)	.113	.646	.001	.002	.606	.847
Q3	Pearson Correlation	.099*	.002	.147***	.125**	-.022	-.007
	Sig. (2-tailed)	.022	.964	.001	.004	.614	.868
Q4	Pearson Correlation	.020	.063	.000	.245***	.049	.075
	Sig. (2-tailed)	.643	.143	.996	.000	.258	.081
Q5	Pearson Correlation	.116**	-.043	.085*	.107*	.059	.192***
	Sig. (2-tailed)	.007	.319	.049	.013	.171	.000
Q6	Pearson Correlation	-.019	-.118**	.096*	.022	.018	.141**
	Sig. (2-tailed)	.656	.006	.026	.613	.673	.001
Q7	Pearson Correlation	.050	.091*	.062	.152***	-.200***	-.139**
	Sig. (2-tailed)	.245	.036	.148	.000	.000	.001
Q8	Pearson Correlation	.122**	-.114**	-.147***	-.051	-.202***	.059
	Sig. (2-tailed)	.005	.008	.001	.235	.000	.174
Q9	Pearson Correlation	.317***	-.131**	.076	.065	.004	.065
	Sig. (2-tailed)	.000	.002	.079	.132	.920	.134
Ql0	Pearson Correlation	-.179***	-.018	.001	.067	-.041	.207***
	Sig. (2-tailed)	.000	.675	.979	.121	.345	.000
Q11	Pearson Correlation	.002	.228***	.070	.238***	.134**	-.085*
	Sig. (2-tailed)	.971	.000	.105	.000	.002	.048
Q12	Pearson Correlation	-.069	-.022	.028	.251***	.066	.247***
	Sig. (2-tailed)	.111	.618	.519	.000	.129	.000
Q13	Pearson Correlation	.206***	.041	.027	.336***	-.173***	-.006
	Sig. (2-tailed)	.000	.344	.530	.000	.000	.885
Q14	Pearson Correlation	-.021	-.013	.002	.268***	-.085*	.044
	Sig. (2-tailed)	.633	.764	.969	.000	.049	.305
Q15	Pearson Correlation	.103*	.409***	.112**	.165***	.244***	-.057
	Sig. (2-tailed)	.016	.000	.009	.000	.000	.183
Q16	Pearson Correlation	-.012	.103*	.022	.277***	-.055	.117**
	Sig. (2-tailed)	.789	.016	.606	.000	.203	.007
Q17	Pearson Correlation	.193***	-.013	.385***	.290***	.079	-.038
	Sig. (2-tailed)	.000	.761	.000	.000	.066	.378
	N	538	538	538	538	538	538

		Q19	Q20	Q21	Q22	Q23	Q24
Q18	Pearson Correlation	.457***	-.039	-.028	-.096*	.009	-.033
	Sig. (2-tailed)	.000	.369	.518	.026	.841	.441
Q19	Pearson Correlation	1.000	-.067	-.054	.009	.015	-.080
	Sig. (2-tailed)	.	.122	.209	.837	.731	.062
Q20	Pearson Correlation	-.067	1.000	.092*	.083	.059	-.230***
	Sig. (2-tailed)	.122	.	.033	.054	.172	.000
Q21	Pearson Correlation	-.054	.092*	1.000	.255***	.219***	.035
	Sig. (2-tailed)	.209	.033	.	.000	.000	.417
Q22	Pearson Correlation	.009	.083	.255***	1.000	-.091 *	-.080
	Sig. (2-tailed)	.837	.054	.000	.	.035	.065
Q23	Pearson Correlation	.015	.059	.219***	-.091*	1.000	.286***
	Sig. (2-tailed)	.731	.172	.000	.035	.	.000
Q24	Pearson Correlation	-.080	-.230***	.035	-.080	.286***	1.000
	Sig. (2-tailed)	.062	.000	.417	.065	.000	.
Q25	Pearson Correlation	.028	.023	.097*	.261***	.042	.216***
	Sig. (2-tailed)	.510	.594	.025	.000	.325	.000
Q26	Pearson Correlation	-.046	-.061	.008	.022	.018	.140**
	Sig. (2-tailed)	.284	.155	.851	.608	.669	.001
Q27	Pearson Correlation	.169***	.097*	.212***	.176***	.084	-.097*
	Sig. (2-tailed)	.000	.024	.000	.000	.050	.024
Q28	Pearson Correlation	.059	-.122**	.072	.129**	-.040	.170***
	Sig. (2-tailed)	.174	.005	.096	.003	.359	.000
Q29	Pearson Correlation	-.038	.316***	.166***	.080	.240***	-.050
	Sig. (2-tailed)	.379	.000	.000	.065	.000	.249
Q30	Pearson Correlation	.054	.225***	.076	.125**	.247***	.044
	Sig. (2-tailed)	.211	.000	.077	.004	.000	.307
	N	538	538	538	538	538	538

		Q25	Q26	Q27	Q28	Q29	Q30
Q1	Pearson Correlation	.131**	-.209***	-.113**	.070	.165***	.196***
	Sig. (2-tailed)	.002	.000	.009	.105	.000	.000
Q2	Pearson Correlation	.096*	-.161***	-.078	.099*	-.050	.043
	Sig. (2-tailed)	.026	.000	.072	.021	.246	.314
Q3	Pearson Correlation	.156***	.127**	.216***	.145***	.125**	.181 ***
	Sig. (2-tailed)	.000	.003	.000	.001	.004	.000
Q4	Pearson Correlation	.195***	-.008	.056	.128**	.091*	.182***
	Sig. (2-tailed)	.000	.859	.193	.003	.035	.000
Q5	Pearson Correlation	.406***	.052	-.001	.234***	.071	.260***
	Sig. (2-tailed)	.000	.229	.976	.000	.101	.000
Q6	Pearson Correlation	.258***	.253***	.134**	.443***	.019	.122**
	Sig. (2-tailed)	.000	.000	.002	.000	.657	.004
Q7	Pearson Correlation	.226***	.155***	.101*	.147***	-.062	-.044
	Sig. (2-tailed)	.000	.000	.019	.001	.152	.313
Q8	Pearson Correlation	.081	.191***	-.103*	.205***	-.232***	-.189***
	Sig. (2-tailed)	.061	.000	.017	.000	.000	.000
Q9	Pearson Correlation	-.023	.111**	.083	.202***	-.113**	-.009
	Sig. (2-tailed)	.599	.010	.055	.000	.008	.844
Q10	Pearson Correlation	.250***	.161***	-.103*	.261***	-.030	.036
	Sig. (2-tailed)	.000	.000	.016	.000	.487	.403
Q11	Pearson Correlation	.233***	.161***	.010	.106*	.202***	.198***
	Sig. (2-tailed)	.000	.000	.822	.014	.000	.000
Q12	Pearson Correlation	.253***	.146***	-.093*	.239***	.039	.136**
	Sig. (2-tailed)	.000	.001	.032	.000	.367	.002
Q13	Pearson Correlation	.414***	.146***	.045	.142***	.005	.149***
	Sig. (2-tailed)	.000	.001	.303	.001	.909	.001
Q14	Pearson Correlation	.273***	.320***	.204***	.249***	.050	.095*
	Sig. (z-tatled)	.000	.000	.000	.000	.250	.027
Q15	Pearson Correlation	.295***	-.014	.220***	.103*	.370***	.280***
	Sig. (2-tailed)	.000	.754	.000	.017	.000	.000
Q16	Pearson Correlation	.461 ***	.271***	.112**	.257***	.097*	.109*
	Sig. (2-tailed)	.000	.000	.009	.000	.025	.012
Q17	Pearson Correlation	.176***	.166***	.143***	.259***	.136**	.187***
	Sig. (2-tailed)	.000	.000	.001	.000	.002	.000
	N	538	538	538	538	538	538

		Q25	Q26	Q27	Q28	Q29	Q30
Q18	Pearson Correlation	-.134**	.141**	.193***	.021	.043	.069
	Sig. (2-tailed)	.002	.001	.000	.624	.315	.108
Q19	Pearson Correlation	.028	-.046	.169***	.059	-.038	.054
	Sig. (2-tailed)	.510	.284	.000	.174	.379	.211
Q20	Pearson Correlation	.023	-.061	.097*	-.122**	.316***	.225***
	Sig. (2-tailed)	.594	.155	.024	.005	.000	.000
Q21	Pearson Correlation	.097*	.008	.212***	.072	.166***	.076
	Sig. (2-tailed)	.025	.851	.000	.096	.000	.077
Q22	Pearson Correlation	.261***	.022	.176***	.129**	.080	.125**
	Sig. (2-tailed)	.000	.608	.000	.003	.065	.004
Q23	Pearson Correlation	.042	.018	.084	-.040	.240***	.247***
	Sig. (2-tailed)	.325	.669	.050	.359	.000	.000
Q24	Pearson Correlation	.216***	.140**	-.097*	.170***	-.050	.044
	Sig. (2-tailed)	.000	.001	.024	.000	.249	.307
Q25	Pearson Correlation	1.000	.118**	.126**	.296***	.188***	.221***
	Sig. (2-tailed)	.	.006	.003	.000	.000	.000
Q26	Pearson Correlation	.118**	1.000	.128**	.333***	.074	.094*
	Sig. (2-tailed)	.006	.	.003	.000	.086	.030
Q27	Pearson Correlation	.126**	.128**	1.000	.208***	.176***	.167***
	Sig. (2-tailed)	.003	.003	.	.000	.000	.000
Q28	Pearson Correlation	.296***	.333***	.208***	1.000	.165***	.184***
	Sig. (2-tailed)	.000	.000	.000	.	.000	.000
Q29	Pearson Correlation	.188***	.074	.176***	.165***	1.000	.563***
	Sig. (2-tailed)	.000	.086	.000	.000	.	.000
Q30	Pearson Correlation	.221 ***	.094*	.167***	.184***	.563***	1.000
	Sig. (2-tailed)	.000	.030	.000	.000	.000	.
	N	538	538	538	538	538	538

Parent Questionnaire (Secondary & Primary Schools)

Guidance Notes:

- This questionnaire is designed by the Education Bureau. The purpose of this questionnaire is to collect your views on the school work. Your views are important in enhancing the quality of education of the school.

- This questionnaire is conducted on an anonymous basis.

- Please select one of the following choices which best reflects your views on the situations described in the sentence:

  (5) Strongly agree

  (4) Agree

  (3) Neutral, i.e. neither agree nor disagree

  (2) Disagree

  (1) Strongly disagree

  If you do not know or do not understand the situations described in the sentence, or the situations described in the sentence are not applicable to you, please select "Don't know/N.A.".

- There are a total of 23 questions. Please answer all questions.

- Please use either a pencil or a black ball pen to blacken your choice. Supply one choice only for each item.

  e.g.:

Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Don't know/N.A.
○	○	○	●	○	○

- Please return this questionnaire to the school on or before_______________.

Parent Questionnaire(Secondary & Primary Schools)

School Name:______________________ Date:__________

Remark: If you have more than one child studying in this school, please take the eldest one as the target for responding to this questionnaire.

My child is studying in year level: 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○

The gender of my child: Male ○ Female ○

I. My views on student learning	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Don't know/ N.A.
1. My child is highly interested in learning.	○	○	○	○	○	○
2. My child takes the initiative to learn.	○	○	○	○	○	○
3. My child is quite confident in learning.	○	○	○	○	○	○
4. My child often completes his/her assignments seriously.	○	○	○	○	○	○
5. My child often reads materials such as leisure reading materials and newspapers outside class.	○	○	○	○	○	○

II. My views on support for student development	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Don't know/ N.A.
6. The school is able to help my child solve the problems he/she encounters in his/her growing process, such as in his/her physical and mental development, making friends and academic performance.	○	○	○	○	○	○
7. The school is able to foster my child's self-discipline and make him/her abide by school regulations.	○	○	○	○	○	○
8. The school helps my child to acquire the skills to get along with others well.	○	○	○	○	○	○

9. The school can foster in my child good virtues.	○	○	○	○	○	○
10. Through participation in the school's extra-curricular activities, my child's learning opportunities in respect of extra-curricular knowledge and life skills, etc. are increased.	○	○	○	○	○	○

III. My views on school climate	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**	Don't know/ N.A.
11. The students of this school respect their teachers.	○	○	○	○	○	○
12. My child likes his/her school.	○	○	○	○	○	○
13. My child gets along well with his/her schoolmates.	○	○	○	○	○	○
14. The teachers care about my child.	○	○	○	○	○	○
15. My child likes to participate in the school's activities and affairs.	○	○	○	○	○	○
16. I am pleased to let my child study in this school.	○	○	○	○	○	○

IV. My views on home-school cooperation	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**	Don't know/ N.A.
17. The school often keeps parents informed of school affairs and development.	○	○	○	○	○	○
18. There are sufficient channels, such as parents' day, the school website, school post box, etc., for me to express my views to the school.	○	○	○	○	○	○
19. The school is willing to listen to the views of parents.	○	○	○	○	○	○
20. The parent-teacher association can facilitate communication between the parents and the school.	○	○	○	○	○	○
21. The school often invites parents to	○	○	○	○	○	○

participate in school activities.						
22. I actively participate in the activities organized by the school and/or parent-teacher association.	○	○	○	○	○	○
23. I have a good relationship with the school.	○	○	○	○	○	○

End

Thank you for your comments

The relationship between market orientation and the features of schools and teachers

- The longer the teachers had been teaching, the lower the market orientation of the schools.
- There was no significant difference in the level of market orientation between schools with more or less number of teachers.
- The more years that a school had operated, the lower the market orientation of the schools.
- The religions of schools do make a difference on market orientation level

Difference between school of high and low level of enrolment, do not make have a lot of impact on school market orientation.

Interview schedule
Market orientation in Hong Kong primary schools (Teacher)

Opening

1) Introduction of the interviewer

- Introduce myself.
- Inform the interviewees that I am a student of Bristol University who studying a course called Doctor of Education.

2) Confidentiality

- The interviewees will be asked before sound recording and note-taking. Let them know that it is important for me to capture their words and ideas, and using the recorder will allow me to do this.
- The interviewees will be informed that they will not be identified or described in any way that would reveal their identity. Pseudonyms and information change will be applied to avoid any chance to reveal who they are.

3) Emphasize of the interview

- The interviewees will be told that there is no absolute right or wrong answer and the focus of this study were not to test the knowledge of the interviewees. The reality, feelings and personal experience of the interviewees are regarded as more valuable in this study.

Turn on the sound recorder

Ask the interviewees if it is OK to record the interview. Verbally stated permission will be recorded. Rewind and check to be sure that the recording is satisfactory.

Interview Questions

Parental oriented

1) Do you know your parents needs? How can you know? Is your school care about parental needs, how?
2) Will school plans driven more by the school's own needs than the response to parental needs? Why?
3) Under which circumstances will school pay more attention on parental needs?
4) Do you think religious beliefs make your school gather, disseminate and response to parental needs more or less? How?
5) Do you think school size hinder or prohibit your school gather, disseminate and response to parental needs more or less? How?
6) Would teaching experience alter the willingness to know or response to parental

information? Why and how?

7) Will school generate, disseminate or response to parental information systematically? Why and how?
8) Is there anything affect the management of parental information?

<u>Competitor oriented</u>

1) Do you think the nearby schools are your competitors? Why? Will your school care about nearby schools? Why?
2) Will school plans driven more by the school's own needs than the response to the changes of nearby schools? Why?
3) How can you know your nearby schools?
4) Under which circumstances will school pay more attention on nearby schools?
5) Do you think religious beliefs make your school gather, disseminate and response to concern nearby schools more or less? How?
6) Do you think school size hinder or prohibit your school gather, disseminate and response to nearby schools more or less? How?
7) Would teaching experience alter the willingness to know or response to nearby schools information? Why and how?
8) Will school generate, disseminate or response to nearby schools information systematically? Why and how?

General views

1) What are your general views about market orientation in schools?

Appendix 16

University of BRISTOL
Graduate school of Education
35 Berkeley Square
Bristol BS8 1JA
England

Dear participant,

Consent letter for the research on Information Management of External Stakeholders

I am currently carrying out a survey about information management of parents and nearby schools in primary schools of Hong Kong, and would be very grateful if you can take part in the survey. In this stage, the participation would normally involve an interview not more than one-hour.

It would be a very meaningful action to take part of this research because international and local studies provide much knowledge about information management of external stakeholders in business sector, but not in educational aspect. The research would not only a pioneering study in Hong Kong, but in the whole world. The collected data therefore would be very invaluable for further academic development. Hopefully, it would benefit not only the management of schools, but with its potential, benefit to all students, parents and teachers.

Please complete the reply slip below to indicate whether you do decide to participate in this research. I understand that confidentiality and anonymity are vital principles in this exercise and I would pledge to strictly adhere to them: no names of the research participants and concerned schools will be disclosed in any report produced for this research without the express permission of the school. Only I will have access to the original data collected. Participation is entirely voluntary. This means that you can choose to stop at any time without negative consequences.

If you understand the contents described above and agree to participate in this research, please sign below. Your help is very much appreciated.

Yours sincerely,

____

Wong Yuet Ming, Bruce

--Reply Slip--

Name of Participant: ____________________________________

I ** will / will not participate in the research. (** Please delete as if inappropriate.)

Signature: ______________________

Date: _________________________